DOCUMENT RESUME

ED 473 566 TM 034 742

AUTHOR	Dillow, Sally, Ed.
TITLE	Education Statistics Quarterly, Fall 2002.
INSTITUTION	National Center for Education Statistics (ED), Washington, DC.
REPORT NO	NCES-2003-604
ISSN	ISSN-1521-3374
PUB DATE	2003-01-00
NOTE	161p.; Published quarterly. Individual articles also cited in "Current Index to Journals in Education" (CIJE). For the individual articles, see TM 524 928-948.
AVAILABLE FROM	ED Pubs, P.O. Box 1398, Jessup, MD 20794-1398. Tel: 877-433-7872 (Toll Free). For full text: http://nces.ed.gov.
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Education Statistics Quarterly; v4 n3 Fall 2002
EDRS PRICE	EDRS Price MF01/PC07 Plus Postage.
DESCRIPTORS	*Educational Research; *Elementary Secondary Education; *Higher Education; *National Surveys; Nontraditional Education; Private Schools; Public Schools; *Teacher Qualifications; Vocational Education
IDENTIFIERS	Beginning Postsecondary Students Long Study; National Assessment of Educational Progress; National Study of Postsecondary Faculty; *Schools and Staffing Survey (NCES)

ABSTRACT

This publication provides a comprehensive overview of work done across all parts of the National Center for Education Statistics (NCES). Each issue contains short publications, summaries, and descriptions that cover all NCES publications and data products released in a 3-month period. Each issue also contains a message from the NCES on a timely subject and a featured topic with invited commentary. The articles in the first section, "Featured Topic: Schools and Staffing Survey," are: (1) "Schools and Staffing Survey, 1999-2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools" (Kerry J. Gruber, Susan D. Wiley, Stephen P. Broughman, Gregory A. Strizek, and Marisa Burian-Fitzgerald); (2) "Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987-88 to 1999-2000" (Marilyn McMillen Seastrom, Kerry J. Gruber, Robin Henke, Daniel J. McGrath, and Benjamin A. Cohen); and (3) "Invited Commentary: First Publication from the Schools and Staffing Survey, 1999-2000" (Daniel P. Mayer). The second section, "Elementary and Secondary Education," contains: (4) "The Nation's Report Card: Geography 2001" (Andrew R.Weiss, Anthony D. Lutkus, Barbara S. Hildebrant, and Matthew S. Johnson); (5) "Vocational Offerings in Rural High Schools" (Linda Hudson and Linda Shafer); (6) "Public Alternative Schools and Programs for Students at Risk of Education Failure: 2000-01" (Brian Kleiner, Rebecca Porch, and Elizabeth Farris); (7) "Overview of Public Elementary and Secondary Schools and Districts: School Year 2000-01" (Lee M. Hoffman); (8) "Public High School Dropouts and Completers from the Common Core of Data: School Years 1998-99 and 1999-2000" (Beth Aronstamm Young); and (9) "Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2000-02" (Beth Aronstamm Young). The third section, "Postsecondary Education," contains: (10) "Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999-2000" (Laura Horn,

Reproductions supplied by EDRS are the best that can be made from the original document.

Katharin Peter, and Kathryn Rooney); (11) "Student Financing of Undergraduate Education: 1999-2000" (Lutz Berkner, Ali Berker, Kathryn Rooney, and Katharin Peter); (12) "Student Financing of Graduate and First-Professional Education: 1999-2000" (Susan P. Choy and Sonia Geis); (13) "Teaching with Technology: Use of Telecommunications Technology by Postsecondary Instructional Faculty and Staff in Fall 1998" (Edward C. Warburton, Xianglei Chen, and Ellen M. Bradburn); (14) "Teaching Undergraduates in U.S. Postsecondary Institutions: Fall 1998" (Xianglei Chen); (15) "The Gender and Racial/Ethnic Composition of Postsecondary Instructional Faculty and Staff: 1992-98"(Denise Glover and Basmat Parsad); and (16) "enure Status of Postsecondary Instructional Faculty and Staff: 1992-98"(Basmat Parsad and Denise Glover. A section on libraries contains: (17) "Public Libraries in the United States: Fiscal Year 2000"(Adrienne Chute, P. Elaine Kroe, Patricia Garnet, Maria Polcari, and Cynthia Jo Ramsey). A section on "Crosscutting Statistics" contains: (18) "The Condition of Education: 2002" (National Center for Education Statistics); and (19) "Projections of Education Statistics to 2012" (Debra E. Gerald and William J. Hussar). A section on methodology contains; (20) "Beginning Postsecondary Students Longitudinal Study: 1996-2001 (BPS:1996/2001) Methodology Report" (Jennifer S. Wine, Ruth E. Heuer, Sara C. Wheeless, Talbric L. Francis, Jeff W. Franklin, and Kristin M. Dudley); and (21) "1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report" (Sameer Y. Abraham, Darby Miller Steiger, Margrethe Montgomery, Brian D. Kuhr, Roger Tourangeau, Bob Montgomery, and Manas Chattopadhyay). (Contains 58 tables and 28 figures.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

TM TMTR 0082

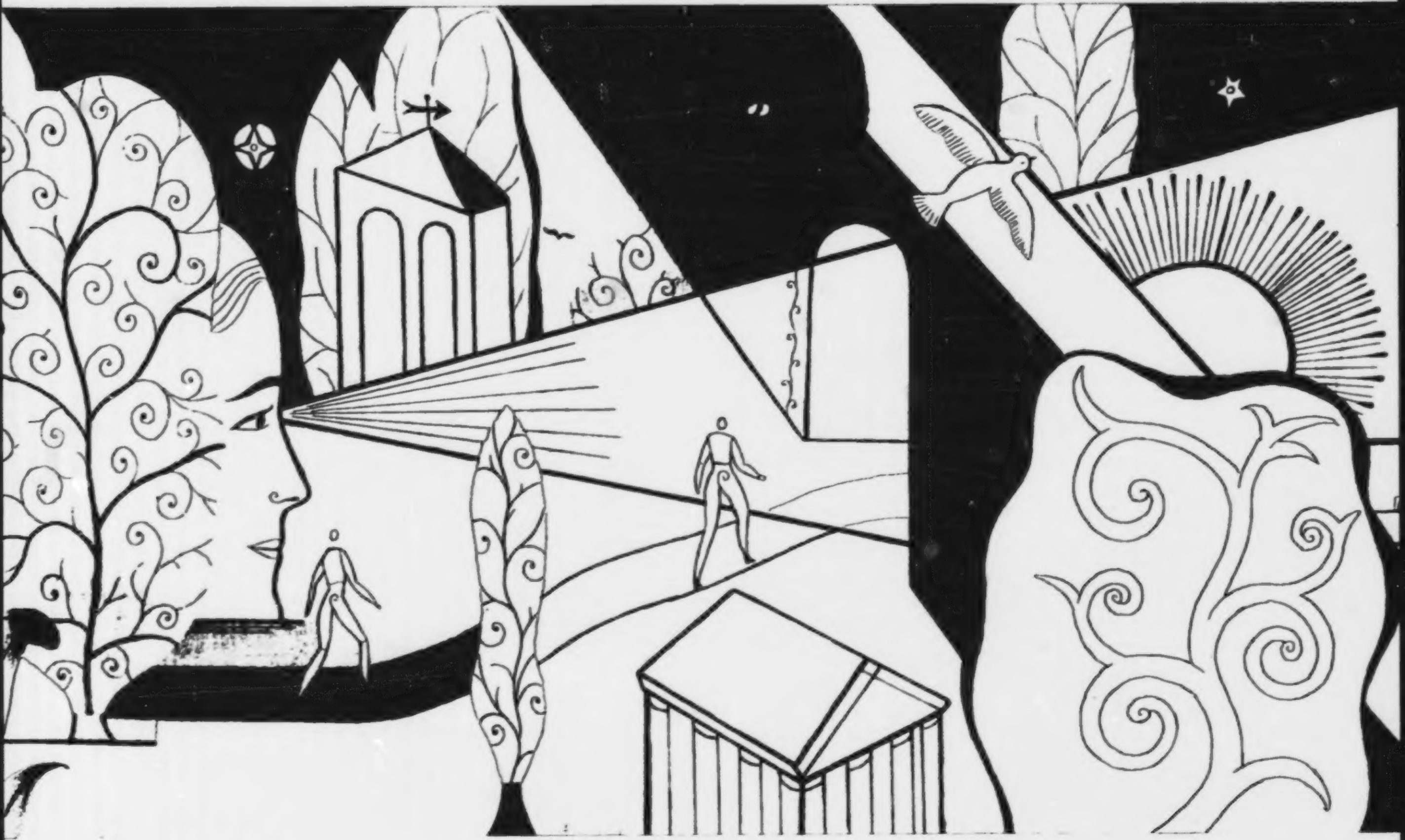
ED 473 566

NCES
National Center for Education Statistics

U.S. Department of Education
Institute of Education Sciences
NCES 2003-604

Education Statistics Quarterly

Volume 4 • Issue 3 • Fall 2002



TM034742

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

U.S. Department of Education
Rod Paige, *Secretary*

Institute of Education Sciences
Grover J. Whitehurst, *Director*

**National Center for
Education Statistics**
Gary W. Phillips, *Deputy Commissioner*

Contacting the National Center for Education Statistics (NCES)

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. If you have any comments or suggestions, we would like to hear from you.

Mail comments or changes of address

Education Statistics Quarterly
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006

Visit the NCES web site — http://nces.ed.gov

The NCES web site provides information about NCES, as well as access to a wide range of publications and data sets about education in the United States and other nations.

Reach NCES staff

Each article in the *Quarterly* lists the name and e-mail address of the NCES staff member who can answer questions about the content. It is also easy to contact any member of the NCES staff from the NCES home page. Under "Visit Popular NCES Sites," select "NCES Staff Directory"; then click on the first letter of the person's last name.

Getting on the *Quarterly* mailing list or obtaining other NCES publications and data products

☐ You can get on the mailing list to receive the *Quarterly* regularly at no cost. While supplies last, you can also get a single copy of most other NCES publications at no cost.
Call toll-free *1-877-4ED-PUBS* (1-877-433-7827) or write
Education Publications Center (ED Pubs)
P.O. Box 1398
Jessup, MD 20794-1398

☐ If you need *more than one copy* or supplies have been exhausted, you can purchase copies of many NCES publications from the Government Printing Office (GPO). Visit the GPO Internet bookstore at http://bookstore.gpo.gov, call GPO at 202-512-1800, or send a fax to 202-512-2250.

☐ If you have Internet access, you can print copies from our web site (http://nces.ed.gov).

Education Statistics Quarterly
Volume 4, Issue 3, Fall 2002
NCES 2003-604

Editorial Board
Barbara Marenus, *Chair*
Shelley Burns
Janis Brown
William Fowler
Wilma Greene
Paula Knepper
Edith McArthur
Marilyn McMillen Seastrom
Leslie Scott

Staff
At the Education Statistics Services Institute (ESSI):

Sally Dillow, *Managing Editor*
Heather Block, *Senior Graphic Designer*
Robin Gurley, *Assistant Editor*
Martin Hahn, *Copy Editor/ Proofreader*
Jennie Jbara, *Project Assistant & Desktop Publisher*
Tom Nachazel, *Editorial Proofreader*

ISSN 1521-3374

EDITORIAL NOTE

National Center for Education Statistics

The National Center for Education Statistics (NCES) fulfills a congressional mandate to collect and report "statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."

EDUCATION STATISTICS QUARTERLY

Purpose and goals

At NCES, we are convinced that good data lead to good decisions about education. The *Education Statistics Quarterly* is part of an overall effort to make reliable data more accessible. Goals include providing a quick way to

- identify information of interest;
- review key facts, figures, and summary information; and
- obtain references to detailed data and analyses.

Content

The *Quarterly* gives a comprehensive overview of work done across all parts of NCES. Each issue includes short publications, summaries, and descriptions that cover all NCES publications and data products released during a 3-month period. To further stimulate ideas and discussion, each issue also incorporates

- a message from NCES on an important and timely subject in education statistics; and
- a featured topic of enduring importance with invited commentary.

A complete annual index of NCES publications appears in the Winter issue (published each January). Publications in the *Quarterly* have been technically reviewed for content and statistical accuracy.

General note about the data and interpretations

Many NCES publications present data that are based on representative samples and thus are subject to sampling variability. In these cases, tests for statistical significance take both the study design and the number of comparisons into account. NCES publications only discuss differences that are significant at the 95 percent confidence level or higher. Because of variations in study design, differences of roughly the same magnitude can be statistically significant in some cases but not in others. In addition, results from surveys are subject to nonsampling errors. In the design, conduct, and data processing of NCES surveys, efforts are made to minimize the effects of nonsampling errors, such as item nonresponse, measurement error, data processing error, and other systematic error.

For complete technical details about data and methodology, including sample sizes, response rates, and other indicators of survey quality, we encourage readers to examine the detailed reports referenced in each article.

TABLE OF CONTENTS

Note From NCES

Kathryn A. Chandler, Program Director, Elementary/Secondary Sample Survey Studies Program 4

Introduces the 1999–2000 Schools and Staffing Survey (SASS).

Featured Topic: Schools and Staffing Survey

Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools

Kerry J. Gruber, Susan D. Wiley, Stephen P. Broughman, Gregory A. Strizek, and Marisa Burian-Fitzgerald 7

Provides an overview of 1999–2000 SASS data and describes selected findings on school safety, class size, school programs, teacher salaries, prior teaching experience of principals, professional development, and school library media specialists.

Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000

Marilyn McMillen Seastrom, Kerry J. Gruber, Robin Henke, Daniel J. McGrath, and Benjamin A. Cohen 12

Provides subject-specific estimates, presented separately for the middle and high school grades, of students' exposure to teachers who are underqualified in the subject taught.

Invited Commentary: First Publications From the Schools and Staffing Survey, 1999–2000

Daniel P. Mayer, Senior Researcher, Mathematica Policy Research, Inc. 20

Elementary and Secondary Education

The Nation's Report Card: Geography 2001

Andrew R. Weiss, Anthony D. Lutkus, Barbara S. Hildebrant, and Matthew S. Johnson 25

Presents major findings from the National Assessment of Educational Progress (NAEP) 2001 Geography Assessment and compares the findings to 1994 results.

Vocational Education Offerings in Rural High Schools

Lisa Hudson and Linda Shafer 38

Examines systems for delivering vocational education and the offerings provided by public high schools in urban, suburban, and rural areas.

Public Alternative Schools and Programs for Students at Risk of Education Failure: 2000–01

Brian Kleiner, Rebecca Porch, and Elizabeth Farris 42

Provides data on the availability of and enrollment in public alternative schools and programs for at-risk students, entrance and exit criteria, staffing, curriculum and services, and collaboration.

Overview of Public Elementary and Secondary Schools and Districts: School Year 2000–01

Lee M. Hoffman 48

Provides national and state-level data on the number, type, size, and location of schools and districts. Also includes data on the numbers of students in programs for migrant education, limited English proficiency, and special education.

Public High School Dropouts and Completers From the Common Core of Data: School Years 1998–99 and 1999–2000

Beth Aronstamm Young 63

Presents the number and percentage of students who dropped out of and completed public school among states that reported dropouts.

Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2000–01

Beth Aronstamm Young 70

Describes characteristics of the 100 largest school districts, such as number and average size of schools, pupil/teacher ratios, number of high school completers, number of special education students, and minority enrollment.

Postsecondary Education

Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999–2000

Laura Horn, Katharin Peter, and Kathryn Rooney 79

Provides an overview of U.S. undergraduates, including student characteristics, institutions attended, programs studied, and the risk of leaving postsecondary education.

Student Financing of Undergraduate Education: 1999–2000

Lutz Berkner, Ali Berker, Kathryn Rooney, and Katharin Peter 87

Examines student financing of undergraduate education in U.S. postsecondary institutions, including types and sources of financial aid by type of institution, price of attendance, and student characteristics.

Student Financing of Graduate and First-Professional Education: 1999–2000

Susan P. Choy and Sonya Geis 93

Examines student financing of graduate and first-professional education in U.S. colleges and universities, with particular attention to student use of teaching and research assistantships.

Teaching With Technology: Use of Telecommunications Technology by Postsecondary Instructional Faculty and Staff in Fall 1998

Edward C. Warburton, Xianglei Chen, and Ellen M. Bradburn 98

Explores instructional faculty and staff's use of e-mail and the Internet, the quality of computing resources at their institutions, and the effects of technology use on workload.

Teaching Undergraduates in U.S. Postsecondary Institutions: Fall 1998

Xianglei Chen 103

Presents findings on who teaches undergraduates in postsecondary institutions, how much they teach, and what teaching practices they use.

The Gender and Racial/Ethnic Composition of Postsecondary Instructional Faculty and Staff: 1992–98

Denise Glover and Basmat Parsad 113

Describes how the gender and racial/ethnic composition of full- and part-time instructional faculty and staff changed between the fall of 1992 and the fall of 1998.

Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98
Basmat Parsad and Denise Glover 127

Analyzes changes in the tenure status of full-time instructional faculty and staff between 1992 and 1998, by their academic rank, gender, and race/ethnicity; by level and control of institution; and by program area.

Libraries

Public Libraries in the United States: Fiscal Year 2000
Adrienne Chute, P. Elaine Kroe, Patricia Garner, Maria Polcari, and Cynthia Jo Ramsey 131

Summarizes information on public libraries, including number of service outlets, population of service area, Internet access, children's and other services, operating income and expenditures, staffing, and size of collection.

Crosscutting Statistics

The Condition of Education: 2002
National Center for Education Statistics 135

Focuses on indicators of the condition and progress of education in the United States, including student participation, persistence, and performance and societal support for learning. Also includes this year's special analyses of private schools and nontraditional undergraduates.

Projections of Education Statistics to 2012
Debra E. Gerald and William J. Hussar 144

Presents national data on elementary and secondary schools and degree-granting institutions, including projections to the year 2012. Also includes state-level projections of public school enrollment and public high school graduates.

Methodology

Beginning Postsecondary Students Longitudinal Study: 1996–2001 (BPS:1996/2001) Methodology Report
Jennifer S. Wine, Ruth E. Heuer, Sara C. Wheeless, Talbric L. Francis, Jeff W. Franklin, and Kristin M. Dudley 147

Describes the procedures and results of the full-scale implementation of the final follow-up interview with the BPS:96 cohort.

1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report
Sameer Y. Abraham, Darby Miller Steiger, Margrethe Montgomery, Brian D. Kuhr, Roger Tourangeau, Bob Montgomery, and Manas Chattopadhyay 150

Describes the methods and procedures used to develop and implement NSOPF:99.

Data Products, Other Publications, and Funding Opportunities

Data Products

Data File: CCD Public Elementary/Secondary School Universe Survey: School Year 2000–01 154

Data File: CCD Local Education Agency Universe Survey: School Year 2000–01 154

Data File: CCD Local Education Agency (School District) Universe Dropout Data: 1999–2000 154

Data File: CCD National Public Education Financial Survey: Fiscal Year 2000 155

CD-ROM: NELS:88/2000 Public-Use Data Files and Electronic Codebook—Base Year Through Fourth Follow-up 155

Data File, Public-Use: 1998 Academic Library Survey 155

Data File, Public-Use: Public Libraries Survey: Fiscal Year 2000 156

Other Publications

The Nation's Report Card: Geography Highlights 2001
National Center for Education Statistics 156

Safety in Numbers: Collecting and Using Crime, Violence, and Discipline Incident Data to Make a Difference in Schools
Irene Hantman, Ghedam Bairu, Annette Barwick, Bill Smith, Bunny Mack, Susan Meston, Linda Rocks, and Brad James 156

Developments in School Finance: 1999–2000
William J. Fowler, Jr. (editor) 157

Pocket Projections: Projections of Education Statistics to 2012
William J. Hussar and Debra E. Gerald 157

National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-up Data File User's Manual
Thomas R. Curtin, Steven J. Ingels, Shiying Wu, and Ruth Heuer 157

Funding Opportunities

The AERA Grants Program 158

The NAEP Secondary Analysis Grant Program 158

NOTE FROM NCES

Kathryn A. Chandler, Program Director,
Elementary/Secondary Sample Survey Studies Program

Introducing the 1999–2000 Schools and Staffing Survey

This issue of the *Education Statistics Quarterly* features the two reports used by the National Center for Education Statistics (NCES) to release data from the 1999–2000 Schools and Staffing Survey (SASS). The first report, *Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools*, presents 60 tables and a discussion illustrating the breadth of the findings for 1999–2000. The second report, *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000*, examines the percentages of teachers who taught in fields outside their areas of training and certification in 1999–2000 and how these percentages changed between 1987–88 and 1999–2000.

Previously conducted in 1987–88, 1990–91, and 1993–94, SASS is the nation's largest recurrent sample survey of elementary and secondary schools and the teachers and administrators who staff them. It features five types of questionnaires, which collect data from school districts, schools, principals, teachers, and library media centers, respectively. In 1999–2000, traditional public schools, private schools, Bureau of Indian Affairs (BIA) schools, and public charter schools were surveyed. Included in the 1999–2000 SASS were large, nationally representative samples of traditional public and private schools, as well as the entire national populations of eligible BIA and public charter schools. In addition to these schools, their principals, and samples of their teachers, SASS included the public school districts for all sampled traditional public schools—or about one out of every three school districts in the nation. Information about library media centers in traditional public, private, and BIA schools was requested on a separate library media center questionnaire, while the school questionnaire for public charter schools included items pertaining to library media centers. The following table gives some idea of the scope of the 1999–2000 SASS:

1999–2000 Schools and Staffing Survey sample sizes

	Questionnaire type				
School sector	**District**	**School**	**Principal**	**Teacher**	**Library media center**
Traditional public	5,465	9,893	9,893	56,354	9,893
Private	(†)	3,558	3,558	10,760	3,558
Bureau of Indian Affairs	(†)	124	124	506	124
Public charter	(†)	1,122	1,122	4,438	(†)
Total	5,465	14,697	14,697	72,058	13,575

†Not applicable.

The content framework that guided development of the 1999–2000 SASS was built around the concept of "capacity"—specifically, district, school, teacher, and library capacity. District capacity includes teacher recruitment and hiring, programs, salary and benefits, and professional development. School capacity includes school policies and practices, school programs and services, curriculum and instruction, parent involvement, and school safety and student behavior. Teacher capacity includes teacher qualifications, experience, and professional development. Finally, library capacity includes qualifications of librarians, resources, technology, and scheduling.

The first two reports using SASS 1999–2000 data, while extensive, only scratch the surface of what these data have to offer. Future reports will continue to delve more deeply into the 1999–2000 data. Over the next year, NCES plans to release reports that present statistical profiles of America's teachers and schools; examine characteristics of traditional public, private, BIA, and public charter schools; provide information about teacher professional development; look at school districts' monitoring of homeschooled students; and give SASS state-level results. These and other NCES reports will cover the breadth of the content framework on which the 1999–2000 SASS was built. Apart from NCES reports, substantive reports on the 1999–2000 data can also be expected from the many other education researchers and analysts who use SASS data to help inform important school resource and policy issues.

Still to come is the release of the Teacher Follow-up Survey (TFS) to the 1999–2000 SASS. Conducted the year following SASS on a subset of the SASS teacher respondents, TFS provides comprehensive information on teachers who stay at their schools, teachers who leave their schools for other teaching assignments, and teachers who leave the profession. The first report from the 2000–01 TFS will focus on teacher attrition.

The SASS team is already at work on the 2003–04 SASS. From here on out, we expect SASS to be conducted on a 4-year cycle. For more information and the latest news on SASS, go to the SASS web site at http://nces.ed.gov/surveys/sass/.

FEATURED TOPIC: SCHOOLS AND STAFFING SURVEY

Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools
Kerry J. Gruber, Susan D. Wiley, Stephen P. Broughman, Gregory A. Strizek, and Marisa Burian-Fitzgerald 7

Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000
Marilyn McMillen Seastrom, Kerry J. Gruber, Robin Henke, Daniel J. McGrath, and Benjamin A. Cohen 12

Invited Commentary: First Publications From the Schools and Staffing Survey, 1999–2000
Daniel P. Mayer, Senior Researcher, Mathematica Policy Research, Inc. 20

Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools

Kerry J. Gruber, Susan D. Wiley, Stephen P. Broughman, Gregory A. Strizek, and Marisa Burian-Fitzgerald

This article was originally published as the Introduction and Selected Findings of the E.D. Tabs report of the same name. The sample survey data are from the NCES Schools and Staffing Survey (SASS).

Introduction

The Schools and Staffing Survey (SASS) is the nation's most extensive survey of elementary and secondary schools and the teachers and administrators who staff them. Sponsored by the National Center for Education Statistics (NCES), SASS has been conducted four times: in school years 1987–88, 1990–91, 1993–94, and 1999–2000. This report introduces the data from the 1999–2000 SASS.

The 1999–2000 SASS covered four school sectors: traditional public, private, public charter, and Bureau of Indian Affairs (BIA). *Traditional public schools* are the subset of all public schools in the United States except public charter schools. Traditional public schools are defined as institutions that provide educational services for at least one of grades 1–12 (or comparable ungraded levels), have one or more teachers to give instruction, are located in one or more buildings, receive public funds as primary support, and are operated by an education agency. They include regular, special education, vocational/technical, and alternative schools. They also include schools in juvenile detention centers, schools located on military bases and operated by the Department of Defense, and BIA-funded schools operated by local public school districts. Traditional public schools do not include public charter schools. *Private schools* are schools not in the public system that provide instruction for any of grades 1–12 (or comparable ungraded levels). The instruction must be given in a building that is not used primarily as a private home. *Public charter schools* are public schools that, in accordance with an enabling state statute, have been granted a charter exempting them from selected state or local rules and regulations. *BIA schools* are schools funded by the BIA, but may be operated by a local tribe, by a local school district, or as a public charter school.[1]

The traditional public school data come from a sample of schools on the 1997–98 Common Core of Data (CCD) that was selected to be representative at the national and state levels. The private school data come from a sample based on the 1997–98 Private School Universe Survey (PSS), updated with more current information from 1998–99 private school association lists (Broughman and Colaciello 1999), that was selected to be representative at the national and affiliation[2] levels. Data on public charter schools include the universe of public charter schools that were open during the 1998–99 school year and were based on a list provided by the U.S. Department of Education's Office of Educational Research and Improvement (OERI) as described in *The State of Charter Schools 2000* (2000). The BIA school population frame was the *Office of Indian Education Programs: Education Directory* (BIA 1998) list of schools that were operating in school year 1997–98. The data were collected in school year 1999–2000, using the most current frames available for sampling. In all cases, schools had to be open in 1999–2000 to be included in the 1999–2000 SASS.

Once schools were selected, the public school districts associated with the selected traditional public schools were included in the sample, as were the school principals. School library media centers were included for the traditional public, private, and BIA sectors. Each selected school was asked to provide a list of its teachers and teacher assignments. These lists made up the teacher sampling frame.

The SASS design features parallel questionnaires for districts, schools, principals, teachers, and school library media centers, facilitating collection of complementary data sets that provide policymakers, researchers, educators, and the general public with a broad range of information on the condition of schools and staffing in the United States. In 1999–2000, interviews were obtained from approximately 4,700 school districts, 12,000 schools, 12,300 principals, 52,400 teachers, and 9,900 school library media centers.

Selected Findings

This report is intended to give the reader an overview of the SASS data for school year 1999–2000 through tables of estimates for traditional public, private, public charter, and BIA schools and their staff. Altogether, these 60 tables present a synopsis of the types of information that can be produced with the data. Comparisons across different types of schools, such as community type, region, school level, and school enrollment, are also possible within each sector. Selected findings are described below.

School safety

Teachers' perceptions of school safety across all school levels tended to differ by sector. Private school teachers were less likely than teachers in other sectors to report being threatened with injury in the past 12 months. Among private school teachers, 3.9 percent reported injury threats, compared with 9.6 percent of traditional public school teachers. Teachers in public charter schools (10.8 percent) and BIA schools (12.6 percent) were most likely to report being threatened with injury.

Private school teachers were also less likely than teachers in other sectors to report physical conflicts among students as a serious problem in their school. Just 1.0 percent of private school teachers reported that physical conflicts among students were a serious problem in their school, compared with 4.8 percent of both traditional public school and public charter school teachers. BIA school teachers were more likely than teachers in other sectors to report physical conflicts among students as a serious problem: 11.7 percent of BIA school teachers reported such conflicts as a serious problem.

Among traditional public school teachers, reports of being threatened with injury varied by community type.[3] Teachers in central city schools were more likely to report threats of

---

[1] Some BIA-funded schools (those operated by public school districts) are included in both the results for BIA schools and the results for traditional public schools. Similarly, a few BIA-funded schools (those operated as public charter schools) are included in the results for BIA schools and for public charter schools.

[2] SASS uses 20 affiliation categories, into which all private schools are divided based on religious orientation and association membership. See appendix B of the full report for a list of the affiliation categories.

[3] Community type is a three-level categorization based on the eight-level U.S. Census Bureau definition of locale. A central city school is a school located in a large or midsize central city. An urban fringe/large town school is a school located in the urban fringe of a large or midsize city, in a large town, or in a rural area within an urbanized metropolitan area. A rural/small town school is a school located in a small town or rural setting.

BEST COPY AVAILABLE

injury in the past 12 months than teachers in urban fringe/large town schools and teachers in rural/small town schools. In central city traditional public schools, 13.5 percent of teachers reported injury threats. In urban fringe/large town schools, 7.9 percent of teachers reported injury threats. In rural/small town schools, 8.6 percent of teachers reported injury threats.

Central city traditional public school teachers were also more likely than other traditional public school teachers to report physical conflicts among students as a serious problem. In central city traditional public schools, 9.4 percent of teachers reported conflicts as a serious problem, compared with 3.3 percent of teachers in urban fringe/large town traditional public schools and 2.7 percent of teachers in rural/small town traditional public schools.

Schools' use of various security measures varied by sector. BIA schools were the most likely to use video surveillance of students, at 22.0 percent, followed by 14.9 percent of traditional public schools, 11.9 percent of public charter schools, and 8.1 percent of private schools.

Class size

As reported by teachers, average class size for self-contained[4] classes tended to be somewhat larger in traditional public and public charter elementary schools than in private and BIA elementary schools. Teachers in self-contained classes in traditional public elementary schools and public charter elementary schools averaged 21.2 students and 21.4 students per class, respectively. In private elementary schools, teachers in self-contained classes averaged 20.3 students. In BIA elementary schools, self-contained classes were even smaller, with an average of 18.0 students.

Class size for departmentalized[5] instruction in secondary schools also differed by sector. In traditional public and public charter secondary school classes with departmentalized instruction, teachers averaged 23.4 students and 23.7 students per class, respectively. In private secondary school classes with departmentalized instruction, teachers averaged 20.3 students. BIA secondary school classes with departmentalized instruction were even smaller. These teachers had classes that averaged 16.5 students.

Within the private sector, there were differences in class size across the three major types[6] of private schools—Catholic, other religious, and nonsectarian—at all school levels. Teachers in Catholic schools tended to have larger classes than did teachers in other religious and nonsectarian private schools. Teachers in self-contained classes in Catholic elementary schools averaged 23.8 students, compared with 17.3 students for teachers in other religious private schools and 17.2 students for teachers in nonsectarian private schools. At the secondary level, Catholic school teachers in departmentalized instruction classes averaged 23.3 students, compared with 17.0 students in other religious schools and 11.4 students in nonsectarian schools.

Programs in elementary schools

At least 40 percent of elementary schools in all sectors reported offering students extended day, before-school, or after-school daycare programs. Private and public charter elementary schools were the most likely to offer such programs. An estimated 65.1 percent of private schools and 62.9 percent of public charter schools offered such programs, compared with 46.5 percent of traditional public elementary schools and 40.3 percent of BIA elementary schools.

Public charter elementary schools were more likely than elementary schools in other sectors to provide programs with special instructional approaches, such as Montessori, self-paced instruction, and ungraded classrooms. Programs with special instructional approaches were offered in 51.9 percent of public charter elementary schools, compared with 32.8 percent of BIA elementary schools, 17.3 percent of traditional public elementary schools, and 20.0 percent of private elementary schools.

Talented/gifted programs were more prevalent in traditional public and BIA elementary schools than in public charter and private elementary schools. Among BIA elementary schools, 84.0 percent provided talented/gifted programs, compared with 71.8 percent of traditional public elementary schools, 32.8 percent of public charter elementary schools, and 15.9 percent of private elementary schools.

---

[4] SASS teacher questionnaires define teachers in self-contained classes as teachers who teach multiple subjects to the same class of students all or most of the day.

[5] SASS teacher questionnaires define teachers in departmentalized instruction as teachers who teach subject matter courses (e.g., biology, history, keyboarding) to several classes of different students all or most of the day.

[6] NCES typology is a nine-level categorization into which schools are divided based on religious orientation, association membership, and program emphasis. See appendix D of the full report for details.

Programs in secondary and combined schools

Traditional public secondary and combined[7] schools were more likely to offer Advanced Placement (AP) courses than were private, public charter, and BIA secondary and combined schools. Among secondary and combined schools, an estimated 51.2 percent of traditional public schools offered these courses, compared with 35.7 percent of private schools, 30.5 percent of public charter schools, and 25.9 percent of BIA schools.

Among private secondary and combined schools, availability of AP courses varied by type, with Catholic schools much more likely than other types of private schools to provide such courses. Compared with 29.3 percent of other religious secondary and combined schools and 28.4 percent of nonsectarian private secondary and combined schools, 77.8 percent of Catholic secondary and combined schools offered AP courses.

The presence of programs for talented/gifted students in secondary and combined schools varied by sector, with BIA secondary and combined schools the most likely to offer such programs. An estimated 94.4 percent of BIA secondary and combined schools offered such programs, compared with 60.3 percent of traditional public secondary and combined schools, 31.3 percent of public charter secondary and combined schools, and 21.4 percent of private secondary and combined schools.

Teacher salary schedules

Public school districts were most likely to use a salary schedule to determine base salaries for teachers, compared with private and public charter schools. An estimated 96.3 percent of public school districts used a salary schedule. This contrasts with 65.9 percent of private schools and 62.2 percent of public charter schools. (Data on salary schedules are not available for those BIA-funded schools that completed the "Public School Questionnaire.")

Of those schools or districts using a salary schedule, public charter schools offered the highest base salary for teachers with a bachelor's degree and no experience. The average starting salary for teachers with no experience in public charter schools that used a salary schedule was $26,977, compared with $25,888 for public school districts. Private schools offered the lowest base salary, with teachers with a bachelor's degree and no experience earning $20,302 annually.

Among public school districts with a salary schedule, Alaska, the District of Columbia, New Jersey, and New York offered the highest starting salaries for teachers with a bachelor's degree and no experience, with a starting salary of $31,016 or above. Idaho, Montana, Nebraska, North Dakota, and South Dakota offered the lowest salaries for these teachers, with a starting salary of $21,396 or below.

For public charter schools with a salary schedule, there were differences among schools based on school origin—that is, by whether the schools originated from preexisting traditional public schools, originated from preexisting private schools, or were newly created as public charter schools. The average base salary for teachers with a bachelor's degree and no experience was $28,754 in preexisting traditional public schools, compared with $26,662 in newly created public charter schools and $24,804 in public charter schools originating from preexisting private schools.

Of those schools or districts using a salary schedule, public school districts offered the highest base salary for teachers at the highest step on the salary schedule. Teachers at the highest step of the salary schedule in public school districts earned an average base salary of $48,728 annually. Teachers at the highest step of the salary schedule in public charter schools earned an average base salary of $46,314. Private schools offered the lowest average base salary for teachers at the highest step, $34,348.

Among public school districts with a salary schedule, Alaska, Connecticut, the District of Columbia, New Jersey, New York, and Pennsylvania offered the highest starting salaries for teachers at the highest step, with a base salary of $59,948 or above. North Dakota and South Dakota offered the lowest salaries for these teachers, with a base salary of less than $34,000.

Prior teaching experience of principals

The vast majority of principals at all school levels had served as teachers prior to becoming principals. Principals in traditional public and BIA schools were more likely than their counterparts in private and public charter schools to have had teaching experience. In traditional public schools, 99.3 percent of principals had been teachers, and in BIA schools, 98.7 percent of principals had been teachers. In private and public charter schools, 87.4 percent and 89.3 percent, respectively, of principals had been teachers.

12

---

[7] A combined school (or school with combined grades) has one or more of grades K–6 (elementary) and one or more of grades 9–12 (secondary); for example, schools with grades K–12, 6–12, 6–9, or 1–12 are classified as having combined grades. Schools in which all students are ungraded (i.e., not classified by standard grade levels) are also classified as combined.

Among private school principals, there were differences across types of private schools. In Catholic schools, 98.6 percent of principals had been teachers, compared with 79.4 percent of principals in other religious schools and 89.5 percent of principals in nonsectarian schools.

Among principals of public charter schools, there was variation by school origin. Public charter schools that were previously traditional public schools were the most likely to have a principal with teaching experience, with 96.8 percent of principals of preexisting traditional public schools reporting experience as a teacher. This compares with 88.9 percent of public charter school principals of preexisting private schools and 87.7 percent of principals of newly created public charter schools.

Professional development

Across all sectors, more than 40 percent of full-time teachers reported participating in professional development activities that focused on in-depth study of content in their main teaching field in the last 12 months. Among full-time traditional public school teachers, 59.3 percent participated in such professional development activities, compared with 55.2 percent of full-time public charter school teachers and 43.1 percent of full-time private school teachers. An estimated 55.8 percent of full-time BIA school teachers participated in such professional development activities in the last 12 months.

Full-time traditional public school teachers were more likely than full-time teachers in other sectors to participate in professional development activities on the uses of computers for instruction. An estimated 70.7 percent of full-time teachers in traditional public schools participated in such professional development activities. This contrasts with 62.2 percent of full-time teachers in BIA schools, 56.9 percent of full-time teachers in public charter schools, and 52.1 percent of full-time teachers in private schools.

School library media specialists

Library media centers in traditional public schools were most likely to report having at least one paid state-certified library media specialist. Among library media centers in traditional public schools, 75.2 percent reported having a paid state-certified library media specialist, compared with 57.9 percent of library media centers in BIA schools, 23.5 percent of library media centers in public charter schools, and 20.2 percent of library media centers in private schools.

Within the traditional public and the private school sectors, reports of having a paid state-certified library media specialist differed by school enrollment. In traditional public schools with less than 100 students, 61.5 percent of library media centers reported having a paid state-certified library media specialist, compared with 89.5 percent in traditional public schools with 1,000 students or more. In private schools with less than 100 students, 4.8 percent reported having a paid state-certified media specialist, compared with 80.4 percent in private schools with 1,000 students or more.

References

Broughman, S.P., and Colaciello, L.A. (1999). *Private School Universe Survey: 1997–98* (NCES 1999–319). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Bureau of Indian Affairs. (1998). *Office of Indian Education Programs: Education Directory.* Washington, DC: Author.

Office of Educational Research and Improvement. (2000). *The State of Charter Schools 2000.* Washington, DC: U.S. Government Printing Office.

Data source: The NCES Schools and Staffing Survey (SASS), 1999–2000.

For technical information, see the complete report:

Gruber, K.J., Wiley, S.D., Broughman, S.P., Strizek, G.A., and Burian-Fitzgerald, M. (2002). *Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools* (NCES 2002–313).

Author affiliations: K.J. Gruber, S.D. Wiley, and S.P. Broughman, NCES; G.A. Strizek and M. Burian-Fitzgerald, Education Statistics Services Institute.

For questions about content, contact Kerry J. Gruber (kerry.gruber@ed.gov).

To obtain the complete report (NCES 2002–313), call the toll-free ED Pubs number (877-433-7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000

Marilyn McMillen Seastrom, Kerry J. Gruber, Robin Henke, Daniel J. McGrath, and Benjamin A. Cohen

This article was originally published as the Statistical Analysis Report of the same name. The sample survey data are from the NCES Schools and Staffing Survey (SASS). Technical notes, detailed data tables, and standard error tables from the original report have been omitted.

Introduction

Over the last 15 years, interest in student performance and teacher qualifications has intensified among education policymakers and researchers. During this time period, research has accumulated that links student achievement to the qualifications of teachers (see Ferguson 1991, 1998; Goldhaber and Brewer 2000; Mayer, Mullens, and Moore 2000).[1] Two central measures of elementary and secondary teacher qualifications are teachers' postsecondary education and their certification. To understand how many students are taught by teachers lacking specified levels of training, efforts have focused on mismatches between teacher qualifications and their teaching assignments (National Commission on Teaching and America's Future 1996; Ingersoll 1999). Such mismatches are commonly referred to as "out-of-field" teaching. Mismatches might include, for example, teachers with a degree in English who are teaching classes in social science or, conversely, teachers with educational backgrounds in the social sciences who are assigned to teach classes in reading.

One of the main findings concerning teacher qualifications has been the relatively high incidence of teachers teaching subjects outside their areas of subject matter training and certification (see, e.g., Bobbitt and McMillen 1994; Ingersoll 1996, 1999, 2000; Neuschatz and McFarling 1999; Robinson 1985). Moreover, the incidence of out-of-field teaching has been shown to vary by subject and by grade level. Out-of-field teaching also has been shown to occur more often in the classrooms of low-income students (Ingersoll 1999).

A number of researchers have explored the hypothesis that teachers' knowledge and ability are associated with student learning in the classroom. One of the earliest studies in this area is the Equality of Educational Opportunity (EEO) survey (Coleman et al. 1966), which found a positive relationship between teachers' verbal abilities and pupil performance. Over the last decade, there has been an increased interest in this area. In a 1991 analysis of Texas school districts, Ferguson used measures of teacher literacy as an indicator of the quality of schooling to conclude that one-quarter to one-third of district variation in student test scores was associated with differences in the quality of schooling. A 1992 study (Hanushek, Gomes-Neto, and Harbison, as cited in Monk 1994) used measures of teachers' subject matter knowledge and student learning gains, and found a positive relationship between how much teachers knew about the subject taught and their students' learning gains in that subject. In a 1994 analysis of student performance and the science and mathematics subject matter preparation of their teachers, Monk reported a positive relationship between student gains in performance and the number of courses their teachers had taken in the subject taught. What is more, Monk also found that coursework in subject matter pedagogy (i.e., teaching methods) appears to contribute more to student performance than academic courses in the subject taught.

In more recent work, Goldhaber and Brewer's 1997 analysis of teachers' postsecondary degrees and students' mathematics performance found a positive relationship between these variables, with higher levels of performance among students whose teachers held a bachelor's or master's degree in mathematics than among students whose teachers were out-of-field. Then, in 2000, Goldhaber and Brewer examined data on the postsecondary degrees and certification status of teachers and their students' performance in mathematics and science. They observed a positive relationship between teachers' degrees and student performance in mathematics consistent with earlier findings.[2] They also found that students whose teachers were certified in mathematics but did not hold a postsecondary degree in mathematics did not perform as well as students whose teachers held a postsecondary degree in mathematics. These findings provide a foundation for further examinations of out-of-field teaching data.

---

[1] A possible link between teacher education and student achievement is one of the resource inputs considered in the meta-analysis debate between Hanushek and Hedges (see, e.g., Hedges, Laine, and Greenwald 1994 and Hanushek 1994). Their findings on this dimension are at best mixed.

[2] The results for science showed no relationship between degree-specific training and student performance.

Data and Methods

The National Center for Education Statistics (NCES) is a major source of data regarding teacher qualifications in the United States. The NCES Schools and Staffing Survey (SASS) collects information on the educational backgrounds and professional credentials and teaching assignments of kindergarten through 12th-grade teachers in the United States. These data can be used to produce national estimates of out-of-field teaching by subject. SASS data are based on nationally representative samples of America's schools, districts, principals, and teachers. SASS data were collected most recently over the 1999–2000 school year.[3]

Elements of teacher qualifications

Out-of-field teaching has been defined by examining two elements of teachers' qualifications: state certification status and postsecondary education. At first glance, one might assume that state certification to teach a subject and grade level should provide a benchmark definition for in-field teaching. State credentials are typically based on postsecondary coursework in the field to be taught, as well as pedagogical coursework and student teaching with experienced teachers. However, since certification requirements vary considerably across states and over time, many analysts prefer to base their out-of-field measures on teachers' postsecondary education (Ravitch 1998). The complete report includes detailed data tables that can be used to examine out-of-field teaching based on postsecondary education and state certification, considered both separately and together.

Postsecondary education. Policymakers and researchers agree that teachers should have undergraduate or graduate coursework in the fields they teach, but opinions differ over how much coursework a teacher needs to complete. Some argue that teachers should earn a major in any subject they intend to teach (Ravitch 1998). Conversely, others argue that a minor in a field is sufficient (as described in Ingersoll 1999). As a result, this report includes data from all degrees attained at the bachelor's level or above for measures of major only and separately for measures of major or minor combined.[4] Further, given the positive research findings of Monk (1994) for coursework in subject matter pedagogy, and of Goldhaber and Brewer (1997, 2000) for academic subject matter majors, both subject matter education and academic degrees are included.

Certification. To receive a "regular" or "standard" certificate for teaching a specific subject and grade level, all states require a bachelor's degree that includes subject matter as well as pedagogical studies; all but 10 states require basic skills tests in reading, mathematics, or general knowledge; and 31 states require subject matter exams (U.S. Department of Education 2002).[5] Typically, states also provide novice teachers a "probationary" certificate that is based on the requirements of the standard certificate. Schools hiring and assigning teachers accept this certificate in lieu of the standard certificate with the expectation that teachers will earn the standard certificate in due time through full-time teaching in the school. This report combines data on probationary, standard, and advanced certificates in determining teacher certification status.[6]

Teacher qualification measures featured in this report. Those who argue that a major in the subject taught is the most appropriate measure of a teacher's qualifications might opt to exclude certification status or minors in the subjects taught from their analyses of in-field and out-of-field teaching. However, few would argue that teachers who have neither certification nor training in a subject are sufficiently equipped to teach in that subject. As a result, this report focuses on two measures:

- ☐ teachers without a major, a minor, or certification in the subject taught; and
- ☐ teachers without a major and certification in the subject taught.

Depending on the focus of the analysis, the teachers in both of these measures can be identified as out-of-field. The teachers in the first measure lack any of the earned credentials that researchers have identified as indicators of teacher qualifications. The teachers in the second measure lack the two earned credentials that researchers have identified as elements of teacher qualifications that are associated with high student performance.

Measures of out-of-field teaching

The SASS data provide the basis for analyzing out-of-field teaching in several different ways. For instance, one focus might be on teachers and the extent to which teachers are assigned to teach classes outside their areas of preparation. This information could provide answers to questions such as: How often are teachers assigned to teach classes outside the areas for which they have been trained? In what fields are teachers most often assigned to classes outside their areas of preparation? SASS data allow analyses of teachers' qualifications in their reported main assignment fields (the subjects in which they teach the most classes), as well as in each different subject that they teach.

---

[3] The NCES Fast Response Survey System (FRSS) has also collected data on out-of-field teaching. See Lewis et al. (1999).

[4] Coursework in pursuit of either an academic major or a subject-specific education major is included in these measures.

[5] The amount of subject matter and pedagogical studies required varies across states and across grade levels. For example, in some states, middle-grade teachers are certified to teach across subjects (i.e., hold a K–9 elementary certification), while in other states, a grade 7–12 subject-specific certification is required in some of the middle grades.

[6] A small percentage (3.3 percent) of America's public school teachers hold provisional certificates. However, variations across states in the requirements for these provisional certificates make it difficult to use them as a measure of teacher qualifications.

Alternatively, the focus might be on the extent to which students are taught by out-of-field teachers. A focus on students could provide insight into the quality of instruction provided to students by answering questions such as: How often are students in U.S. classrooms exposed to instruction from teachers who do not have postsecondary training or certification in the subject area taught?

Four out-of-field teaching measures. Based on SASS data, four approaches to measuring out-of-field teaching can be used to address these questions: teachers out-of-field by main teaching assignments, teachers out-of-field by each subject taught, classes taught by out-of-field teachers, and students taught by out-of-field teachers. The focus of this report is on measuring students' exposure to out-of-field teachers; thus, this report focuses on the measure for students taught by out-of-field teachers. In addition, detailed tables for all four approaches are included in the complete report.

The out-of-field measure featured in this report: Students taught by out-of-field teachers. The measure for students taught by out-of-field teachers tracks the number of students taught by teachers who are in-field or out-of-field in a specific subject. The "students taught" measure provides the most targeted assessment of the extent to which students are exposed to underqualified teachers. This measure allows analysts to report the *percentage of all students taught each subject by teachers who are teaching outside their areas of preparation.*[7]

Reporting out-of-field teaching by grade level

Differences in school and class organization at the elementary, middle, and high school levels require a separate consideration of out-of-field teaching by level of instruction. At the elementary level, the available data do not support estimates of the percentage of students taught by out-of-field teachers. However, data on the teacher-based measure of out-of-field teaching in the main assignment field are included in the complete report. Inasmuch as class rotations, or departmentalized instruction, are limited in the early grades, this measure provides a reasonable proxy of student exposure to teachers with different levels of qualifications.

Policymakers and researchers have increasingly examined the middle school grades as an important, separate level of instruction (see Alt, Choy, and Hammer 2000; Levine, McLaughlin, and Sietsema 1996; Lewis et al. 1999). For most students, the middle grades mark their first experiences with departmentalized instruction, in which students move between classrooms from teacher to teacher and subject to subject. Thus, the middle grades serve as an introduction to the secondary years of schooling. Previous research on out-of-field teaching has found substantial differences in the extent of out-of-field teaching between the middle grades and the high school grades. In particular, Ingersoll (1999) found higher rates of out-of-field teaching in the middle grades compared with the high school grades.

At the high school level, most teachers are assigned to subject-area departments and teach a single subject or several subjects to multiple classes throughout the school day. Although actual rates of out-of-field teaching are lower at the high school level than at the middle school level, the wide range of subjects and classes at the high school level makes the potential for out-of-field teaching high. Moreover, the instructional content at the high school level can extend well beyond the introductory level of content in a given subject area. Therefore, a teacher without adequate preparation in a specific subject area may have greater difficulty teaching the content effectively at the high school level than at the middle school level.

The course content and educational contexts are so different between the elementary, middle, and high school years that reporting them together would disguise important differences in out-of-field teaching. Thus, it is important to report out-of-field teaching estimates separately for all three levels.[8] Teachers were categorized based on the range of grades taught and main assignment field. The elementary grades, K–4, include those teaching in these grades exclusively and those who teach some combination of grades K–9 with a main assignment field of elementary education or special education. The middle grades, 5–8, include those teaching some combination of grades K–9 with a main assignment field other than elementary education or special education and not teaching any grades higher than 9. The high school grades, 9–12, include those teaching grade 9 only and those teaching any grades 10 or higher.

---

[7] Since SASS is a sample of teachers rather than students, technically the measure is the percentage of teachers' students who are in classes with teachers teaching outside their field. For ease of presentation, this is referred to as the percentage of students who are in classes with teachers teaching outside their field.

[8] Although the complete report provides detailed tables for all levels, the report focuses on the data for the middle and secondary levels.

Reporting on out-of-field teaching over time

This report includes SASS data collected from public school teachers over 4 school years (1987–88, 1990–91, 1993–94, and 1999–2000) that span a 13-year period.[9] Although the data from the three earlier administrations of SASS have been published previously, there has been variability over time in different aspects of the definitions used. A portion of this variability has resulted from differences in the surveys used. These changes impact slightly the matches that are made between teachers' majors and minors and the subjects they teach. A larger source of variability has resulted from analysts' choices concerning the credentials used to match with subjects teachers teach, the teachers to include, and the definitions of grade ranges. Thus, in preparing the data for this analysis, considerable care was taken in developing a consistent set of definitions that were applied to the data from each administration of SASS to allow for an analysis of changes in these measures over the last 13 years.

Findings

The student-based measure of out-of-field teaching discussed here provides estimates of students' exposure to teachers with different levels of qualifications. The measure of students taught by teachers without a major, a minor, or certification in the subject taught provides estimates of the percentage of students in each subject whose teachers lack the minimal level of qualifications deemed necessary for teaching a specific subject. The measure of students taught by teachers who do not have both a major and certification in the subject taught provides subject-specific estimates of the percentage of students whose teachers do not have the two credentials that are most likely to help their students excel. The data are presented separately for the middle grades and the high school grades. All data discussed in these findings are included in table 1.

Teachers without a major, a minor, or certification

Middle grades—5–8. In the middle grades for school year 1999–2000, between 11 and 22 percent of the students enrolled in English, mathematics, science, foreign language, social science, and the subfield of history were in classes led by teachers without a major, a minor, or certification in the subject taught, compared to less than 5 percent of the middle-grade students in arts and music and in physical education/health education classes.[10] In contrast, between 29 and 40 percent of the middle-grade students enrolled in biology/life science, physical science, or ESL/bilingual education classes had teachers who lacked a major, a minor, or certification in the subject taught. Although there was a decrease between school years 1987–88 and 1999–2000 in the percentage of middle-grade students in physical education/health education classes that were led by teachers without any of these credentials, there was no measurable change between these school years in the percentage of middle-grade teachers lacking credentials in any of the other subjects examined.

High school grades—9–12. In the 1999–2000 school year, between 5 and 6 percent of the high school students enrolled in English, science, social science, arts and music, and physical education/health education classes; 9 percent of the high school students enrolled in mathematics classes; and 11 percent of the high school students enrolled in foreign language classes were in classes led by teachers without a major, a minor, or certification in the subject taught. In contrast, 31 percent of the students in ESL/bilingual education classes had teachers who did not have a major, a minor, or certification in the field.

In some fields, teachers may have a general degree and certification or a degree and certification in one specific subfield. For example, data reported for the broad category of science include matches between teacher credentials in general science or any science subfield as legitimate. However, since teacher credentials in the specific subfield may be more important to student success in that subfield, where available, data are presented for subfields as well. When the specific subfields of social science and science are considered separately, between 8 and 10 percent of the high school students in history, chemistry, and biology/life science; 17 percent of the students in physics; and 36 percent of the students in geology/earth/space science were found to have had teachers who lacked credentials in the specific subfield taught in the 1999–2000 school year.

---

[9] The 1999–2000 population of public school teachers includes public charter school teachers.

[10] This analysis is limited to those students in the middle grades who are in a departmentalized setting; student counts are not available for individual self-contained classrooms. In addition, the matches for foreign language and arts and music require exact matches between teacher training and courses taught.

Table 1.—Percentage of public school students by grade levels taught and teacher's qualification status in subject: 1987–88 and 1999–2000

	Middle grades (5–8)				High school grades (9–12)			
	No major and certification		No major, minor, or certification		No major and certification		No major, minor, or certification	
Subject	1987–88	1999–2000	1987–88	1999–2000	1987–88	1999–2000	1987–88	1999–2000
English	64.6	58.3	19.5	17.4	38.2	29.8	13.0	5.6
Foreign language	—	60.7	—	13.8	—	47.6	—	11.1
Mathematics	69.9	68.5	17.2	21.9	37.4	31.4	11.1	8.6
Science	62.4	57.2	16.3	14.2	31.4	27.3	8.1	5.5
Biology/life science	70.0	64.2	32.9	28.8	47.7	44.7	9.3	9.7
Physical science	92.9	93.2	43.0	40.5	70.2	63.1	30.9	15.5
Chemistry	—	—	—	—	62.9	61.1	16.8	9.4
Geology/earth/space science	—	—	—	—	83.2	78.6	50.9	36.3
Physics	—	—	—	—	81.6	66.5	40.3	17.0
Social science	48.3	51.1	12.7	13.3	33.7	27.9	7.5	5.9
History	67.5	71.0	15.2	11.5	62.1	62.5	13.0	8.4
ESL/bilingual education	80.5	72.9	41.2	36.1	88.7	70.8	54.4	31.1
Arts and music	15.1	15.0	2.0	2.5	15.7	19.6	3.3	5.0
Physical education/health education	22.2	18.9	5.8	3.4	24.8	19.1	5.6	4.5

—Not available.

NOTE: Middle-level teachers include teachers who taught students in grades 5–9 and did not teach any students in grades 10–12; teachers who taught in grades 5–9 who identified themselves as elementary or special education teachers were classified as elementary teachers. High school teachers include all teachers who taught any of grades 10–12, as well as teachers who taught grade 9 and no other grades. Not all subjects were measured in each SASS administration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," 1987–88 and 1999–2000, and "Charter Teacher Questionnaire," 1999–2000.

There were measurable decreases in the percentage of high school students enrolled in classes with teachers without the recognized credentials in a number of fields.[11] The percentage of high school students enrolled in classes with teachers without an in-field major, minor, or certification in English; mathematics; social science, including the subfield history; ESL/bilingual education; and science, including physical sciences (as a group) and the specific subfields of chemistry, geology/earth/space science, and physics, decreased between school years 1987–88 and 1999–2000. The only increase in high school students' exposure to teachers lacking the specified credentials occurred in arts and music, where, despite the increase, it remained the case in school year 1999–2000 that 95 percent of the high school students enrolled in arts and music classes were in classes led by teachers with at least one of these credentials in the specific area of arts and music taught.

Teachers without a major and certification

Middle grades—5–8. In the 1999–2000 school year, at least two-thirds of the students in middle-grade mathematics classes (69 percent) and ESL/bilingual education classes (73 percent) had teachers who did not report a major and certification in the subject taught. Approximately 60 percent of the students in middle-grade English classes (58 percent), foreign language classes (61 percent), and science classes (57 percent) had a teacher who did not report a major and certification in the subject taught. By comparison, although the estimate for the specific subfield of biology/life science (64 percent) was similar to the percentage for all science classes, most students in middle-grade physical science classes (93 percent) had teachers who did not have certification along with a major in any of the physical sciences or in physical science education. About one-half of the students in middle-grade social science classes (51 percent) had teachers who did not have a major and certification in the field, but 71 percent of the students in middle-grade history classes had teachers who did not report having a major in history or world civilization and certification in the field.

In contrast, fewer students enrolled in classes in arts and music and in classes in physical education/health education had teachers who did not hold a major and certification in the field taught. Only 15 percent of the middle-grade students in arts and music classes had teachers who did not report a certification along with a major in their specific subfield, and only 19 percent of the middle-grade students in physical education/health education classes had teachers who did not have a certification and a major in a physical education or health education field.

---

[11] Methodological differences, including differences in survey formats over the years, do not appear to have a major impact on change over time in the estimates.

Over the 13-year period from school year 1987–88 to school year 1999–2000, there were decreases in the percentage of middle-grade English teachers who did not hold certification and a major in the subject taught; however, in 1999–2000, it remained the case that 58 percent of middle-grade English students had teachers who did not have a major and certification in the field. For the other subjects examined, there were small apparent fluctuations over this time period, but there were no measurable differences over time. In both the 1987–88 and the 1999–2000 school year, approximately 70 percent of the middle-grade students in mathematics classes and 60 percent of the middle-grade students in science classes had teachers who did not have a major and certification in the subject taught. In contrast, only 15 to 22 percent of the middle-grade students in arts and music and in physical education/health education classes had teachers who had not majored and were not certified in their teaching field.

High school grades—9–12. In the 1999–2000 school year, one-third or fewer of the high school students in English, mathematics, science, social science, arts and music, and physical education/health education classes had teachers who did not have a major and certification in the subject taught. In contrast, 71 percent of the high school students in ESL/bilingual education classes had teachers who did not have a major and certification in ESL/bilingual education. And 48 percent of the students in foreign language classes had teachers who did not have a major and certification in the specific language taught.

Despite the relatively small amount of out-of-field teaching evident in the general fields of science and social science in school year 1999–2000, a different profile emerges when individual subfields are considered separately. Although 27 percent of the high school students in science classes had teachers without a major and certification in any field of science, the percentages were much higher for each specific subfield. Thus, 45 percent of high school students in biology/life science classes had teachers who did not have certification and a major in biology/life science. About 63 percent of the high school students in physical science classes had teachers who did not have certification and a major in some area of physical science. The percentages were similar for the subfields of chemistry (61 percent) and physics (67 percent), but higher for the subfield of geology/earth/space science, with about three-quarters of the students (79 percent) in high school geology/earth/space science enrolled in classes led by teachers without certification and a major in geology/earth/space science. Similarly, although 28 percent of high school students in social science classes had teachers without a social science major and certification of some type, 63 percent of the high school students in history classes did not have teachers with a major and certification in history or world civilization.

Although in school year 1999–2000 one-third or fewer of the high school students in English, mathematics, and social science classes had teachers who did not have a major and certification in the subject area taught, over the 13-year period from school year 1987–88 to school year 1999–2000 the percentage of students in classes led by teachers who did not have an in-field major and certification decreased in each of these fields. Similarly, there were decreases in the percentages of high school students in physics, physical science, ESL/bilingual education, and physical education/health education classes with teachers who did not have an in-field major and certification. The apparent decrease in the percentage of high school students in science classes was not significant. Although there was an increase for arts and music, 20 percent of the high school students enrolled in these classes had teachers without an in-field major and certification in the specific subfield taught in 1999–2000.[12]

Discussion and Summary

The two measures of teacher qualifications featured in this report provide different perspectives on out-of-field teaching. Teachers who do not have a major, a minor, or certification in the subject taught can, most certainly, be classified as out-of-field teachers. In the middle grades in 1999–2000, some 11 to 14 percent of the students taking social science, history, and foreign languages, and 14 to 22 percent of the students taking English, mathematics, and science were in classes led by teachers without any of these credentials. In addition, approximately 30 to 40 percent of the middle-grade students in biology/life science, physical science, or ESL/bilingual education classes had teachers lacking these credentials.

In the high school grades in 1999–2000, between 5 and 10 percent of the students in classes in English, mathematics, science and the subfields of biology/life science and chemistry, social science and the subfield of history, arts and music, and physical education/heath education had teachers who were without a major, a minor, or certification in the field taught, and thus are considered out-of-field by this measure. Within the subfields of science, 17 percent of the high school students enrolled in physics and 36 percent of those enrolled in geology/earth/space science were in classes led by out-of-field teachers. In addition, 31 percent of the high school students enrolled in ESL/bilingual education classes had out-of-field teachers.

---

[12] Any apparent changes in the other fields were not statistically significant. In addition, the matches for foreign languages and arts and music require exact matches between teacher training and courses taught.

When the definition of out-of-field is expanded to include teachers who do not hold certification and a major in the subject taught, the amount of out-of-field teaching increases. With this measure, at a minimum 6 out of every 10 middle-grade students in classes in English; foreign languages; mathematics; science, including the subfields of biology/life science and physical science; history; and ESL/bilingual education were in classes led by out-of-field teachers in 1999–2000. The proportions were higher for some subjects, with 73 percent of the students enrolled in ESL/bilingual education classes, 69 percent of the middle-grade students enrolled in mathematics, 71 percent in history, and 93 percent of the students enrolled in physical science in classes led by teachers without majors and certification in these fields.

At the high school level in 1999–2000, at a minimum 6 out of every 10 students enrolled in physical science, including the subfields of chemistry, geology/earth/space science, and physics; history; and ESL/bilingual education classes had teachers who did not have certification and a major in the subject taught and thus are considered out-of-field by this measure. In addition, 45 percent of the high school students enrolled in biology/life science and approximately 30 percent of those enrolled in mathematics, English, and social science classes had out-of-field teachers using this measure.

A comparison between the experiences of students in the middle grades and those in the high school grades shows that there were relatively fewer teachers with certification and an in-field major in the middle grades than in the high school grades in English; mathematics; science, including the subfields of biology/life science and physical science; and social science over the 13-year period. That is to say, compared to the high school grades, higher percentages of students in the middle grades were in classes led by teachers who did not hold certification and a major in the subject taught. Similarly, higher percentages of students taking these subjects in the middle grades were in classes led by teachers without any of the recognized credentials. Whether it is because a general elementary certification or training is thought to be sufficient in the middle grades, or because teacher specialization in the middle grades has not caught up with the move toward changing classes in the middle grades, teachers who teach specific subjects in the middle grades are less likely to have the recognized credentials than their contemporaries teaching in the high school grades.

A comparison of the student experiences over the 1987–88 to 1999–2000 period shows that in the middle grades there were decreases in the percentages of students taught English by teachers who did not have certification and a major in the subject taught, and there was a decrease in the percentage of students in physical education/health education classes that were led by teachers without any of the recognized credentials (i.e., no major, minor, or certification). More changes were evident in the high school grades, where there were improvements evident in a number of fields—with decreases in the percentages of students taught by teachers who did not have both a major and a certification in the subject taught in English, mathematics, the science subfields of physical science and physics, social science, ESL/bilingual education, and physical education/health education. There was an increase in the percentage of high school students in arts and music classes with teachers without a major and certification in the specific subfield taught, but in 1999–2000 this only affected 20 percent of the students. Decreases were also evident in the percentages of students who were taught by teachers without any of the recognized credentials in English; mathematics; science and each of the subfields—physical science, chemistry, geology, and physics; social science and the subfield history; and ESL/bilingual education. The only increase in the high school grades was in arts and music, where the percentage of students taught by teachers without a major, a minor, or certification went from 3 percent in 1987–88 to 5 percent in 1999–2000.

There was one pattern that was similar across both the middle and high school grades: the arts and music teachers and the physical education/health education teachers were the most likely of all the subject matter teachers to have certification and a major in the subject taught. And in the middle grades these teachers were also the least likely to lack a major, a minor, or certification. Whether this is the result of the specific requirements to teach in these fields or a matter of supply and demand remains a topic for further study.

References

Alt, N., Choy, S.P., and Hammer, C.H. (2000). *In the Middle: Characteristics of Public Schools With a Focus on Middle Schools* (NCES 2000–312). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Bobbitt, S.A., and McMillen, M.M. (1994). *Qualifications of the Public School Teacher Workforce: 1988 and 1991* (NCES 95–665). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Coleman, J.S., Campbell, E.Q., Hobson, C.J., McPartland, J., Mood, A.M., Weinfeld, F.D., and York, R.L. (1966). *Equality of Educational Opportunity*. U.S. Department of Health, Education, and Welfare. Washington, DC: U.S. Government Printing Office.

Ferguson, R.F. (1991). Paying for Public Education: New Evidence on How and Why Money Matters. *Harvard Journal on Legislation*, *28*(2): 465–498.

Ferguson, R.F. (1998). Can Schools Narrow the Black-White Test Score Gap? In C. Jencks and M. Phillips (Eds.), *The Black-White Test Score Gap* (pp. 318–374). Washington, DC: The Brookings Institution.

Goldhaber, D.D., and Brewer, D.J. (1997). Why Don't Schools and Teachers Seem to Matter? Assessing the Impact of Unobservables on Education. *Journal of Human Resources*, *32*(3): 505–523.

Goldhaber, D.D., and Brewer, D.J. (2000). Does Teacher Certification Matter? High School Certification Status and Student Achievement. *Educational Evaluation and Policy Analysis*, *22*(2): 129–145.

Hanushek, E.A. (1994). Money Might Matter Somewhere: A Response to Larry V. Hedges, Richard D. Laine, and Robert D. Greenwald. *Educational Researcher*, *23*(4): 5–8.

Hedges, L.V., Laine, R.D., and Greenwald, R. (1994). Does Money Matter? A Meta-Analysis of Studies of the Effects of Differential School Inputs on Student Outcomes. *Educational Researcher*, *23*(2): 5–14.

Ingersoll, R. (1996). *Out-of-Field Teaching and Educational Equality* (NCES 96–040). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Ingersoll, R. (1999). The Problem of Underqualified Teachers in American Secondary Schools. *Educational Researcher*, *28*(2): 26–37.

Ingersoll, R. (2000). Rejoinder: Misunderstanding the Problem of Out-of-Field Teaching. *Educational Researcher*, *30*(1): 21–22.

Levine, R., McLaughlin, D., and Sietsema, J. (1996). *Trends in School District Demographics: 1986–87 to 1990–91* (NCES 96–399). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Lewis, L., Parsad, B., Carey, N., Bartfai, N., Farris, E., Smerdon, B., and Greene, B. (1999). *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers* (NCES 1999–080). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Mayer, D.P., Mullens, J.E., and Moore, M.T. (2000). *Monitoring School Quality: An Indicators Report* (NCES 2001–030). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Monk, D.H. (1994). Subject Area Preparation of Secondary Mathematics and Science Teachers and Student Achievement. *Economics of Education Review*, 13(2): 125–145.

National Commission on Teaching & America's Future. (1996). *What Matters Most: Teaching for America's Future. Report of the National Commission on Teaching & America's Future. Summary Report*. New York: Author.

Neuschatz, M., and McFarling, M. (1999). *Maintaining Momentum: High School Physics for a New Millennium*. College Park, MD: American Institute of Physics. Available: www.aip.org/statistics

Ravitch, D. (1998, August 10). Lesson Plan for Teachers. *The Washington Post*, p. A17.

Robinson, V. (1985). *Making Do in the Classroom: A Report on the Misassignment of Teachers*. Washington, DC: The Council for Basic Education.

U.S. Department of Education. (2002). *Meeting the "Highly Qualified Teachers" Challenge: The Secretary's Annual Report on Teacher Quality*. Washington, DC: U.S. Government Printing Office.

Data source: The NCES Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," 1987–88 and 1999–2000, and "Charter Teacher Questionnaire," 1999–2000.

For technical information, see the complete report:

Seastrom, M.M., Gruber, K.J., Henke, R., McGrath, D.J., and Cohen, B.A. (2002). *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000* (NCES 2002–603).

Author affiliations: M.M. Seastrom and K.J. Gruber, NCES; R. Henke, MPR Associates, Inc.; D.J. McGrath and B.A. Cohen, Education Statistics Services Institute.

For questions about content, contact Kerry Gruber (kerry.gruber@ed.gov).

To obtain the complete report (NCES 2002–603), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Invited Commentary: First Publications From the Schools and Staffing Survey, 1999–2000

Daniel P. Mayer, Senior Researcher, Mathematica Policy Research, Inc.

This commentary represents the opinions of the author and does not necessarily represent the views of the National Center for Education Statistics.

In mid-2002, the National Center for Education Statistics (NCES) released the first two publications based on data from the 1999–2000 Schools and Staffing Survey (SASS). These publications highlight some important findings contained in the new SASS data. Researchers and policymakers will turn to these data, as they have to earlier releases of SASS, to explore a variety of critical school resource and policy issues. SASS provides both nationally representative data and state-by-state estimates. NCES staff and other researchers have generated literally hundreds of papers and presentations from this data source (Wiley et al. 1999). The importance of SASS lies in the fact that it is the largest, most extensive recurrent survey of K–12 school districts, schools, teachers, and administrators in the country *and* that it includes parallel data on traditional public schools, private schools, Bureau of Indian Affairs (BIA) schools, and in 1999–2000, for the first time, public charter schools. Like its predecessors (the 1987–88, 1990–91, and 1993–94 SASS), this fourth cycle of SASS offers data along four important dimensions:

- critical components of teacher supply, demand, and attrition, with attention to critical shortage areas and the policies and practices at all levels enacted to meet the demand in those areas;
- the professional characteristics, preparation, and experience of teachers and administrators, plus their perceptions of school conditions, professional responsibilities, decisionmaking, and compensation policies;
- the conditions and characteristics of the school as a work place and learning place, including characteristics of the student body, curriculum, special programs, and organizational structure;
- the implementation of school programs and policies such as English as a second language [ESL], bilingual education, diagnostic and prescriptive services, and programs for the gifted and talented. (Excerpted from Mullens and Kasprzyk 1997.)

Each cycle of SASS focuses on these fundamental issues, and some cycles have added questions intended to shed light on issues of rising prominence. For example, the 1999–2000 SASS includes a survey of the complete universe of public charter schools. In addition, the 1999–2000 SASS includes data on computer availability and use, as well as more extensive data on professional development opportunities and training.

Although some policymakers and researchers have criticized SASS because it provides no link to student outcome data, others have noted that SASS's importance lies in the fact that it does focus on collecting teacher- and school-level data, whereas most other NCES K–12 programs focus on collecting student-level data (Mullens and Kasprzyk 1997). Clearly, both policymakers and researchers have come to depend on SASS as a way to measure (1) the current status of schools, administrators, and teachers; and (2) changes over time in schools and the professionals who work in them, which take place as this country's demographics, public policies, and state and national economies change.

Providing an Overview of the Data

Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools provides 60 tables of data, in order to "present a synopsis of the types of information that can be produced with the [SASS] data" (Gruber et al. 2002). Separate tables are presented for each school sector; and, within each sector, findings are broken out by community type, region, school level, and school enrollment. In addition, findings on public schools are broken out by state. Among the topics explored are school safety, class size, programs in elementary schools, programs in secondary and combined schools, teacher salary schedules, the teaching experience of principals, professional development, and school libraries and media centers.

A variety of interesting findings are highlighted in the *Overview* report, illustrating the breadth of the SASS data on the status of schools and staffing in 1999–2000. Examples include the following:

- Teachers in private schools were less likely to report being threatened with injury (4 percent) than teachers in BIA schools (13 percent), public charter schools (11 percent), and traditional public schools (10 percent).
- Extended day programs at elementary schools existed at 65 percent of private schools, 63 percent of public charter schools, 47 percent of traditional public schools, and 40 percent of BIA schools.

- Teachers in self-contained classes in traditional public elementary schools and public charter elementary schools had similar class sizes of 21.2 and 21.4 students, respectively, while private elementary schools had an average class size of 20.3 students and BIA elementary schools had an average class size of 18.0 students.
- Approximately 96 percent of public school districts used salary schedules to determine base salaries for teachers, while 66 percent of private schools and 62 percent of public charter schools used salary schedules. (Data on salary schedules were not available for BIA schools.)

This report is not meant to fully utilize the SASS data but rather to offer a sample of what is available. These few findings help us determine the questions that call for more sophisticated analyses. For example, does school location influence our interpretation of these findings? Specifically, does the fact that public charter schools are overrepresented in central cities change our perspective on the above aggregate comparisons of all public charter schools to all traditional public schools? Once location is taken into account, will charter schools be found to be *more* safe for teachers than traditional public schools? Similarly, is the greater availability of extended day programs at public charters, compared to traditional public schools, due to the fact that extended day programs, in general, are more prevalent in central cities? Another interesting issue to explore with these data is the relationship between the characteristics of schools and the quality of the teachers who work in them. For example, do schools with smaller classes, or schools with salary schedules, draw more highly qualified teachers than schools with larger classes, or schools without salary schedules? The 60 tables presented in this report provide ample information about the nation's schools and also raise several interesting questions.

Exploring the Qualifications of Public School Teachers

In contrast to the *Overview* report, *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000* (Seastrom et al. 2002) hones in on one issue: out-of-field teaching (teachers are teaching out-of-field if there is a mismatch between their training and the subject they teach). The report's findings on this key issue will be examined with new urgency, because "teacher quality" is currently being touted by researchers and policymakers as, if not the most important factor, one of the most important factors influencing school quality. Besides the training that teachers receive, other key determinants of teacher quality include years of teaching experience, academic ability, participation (as new teachers) in induction programs, and extent of exposure to high-quality professional development programs (Mayer, Mullens, and Moore 2001). Although researchers and policymakers are not in agreement about how certification programs should be structured, there is, nevertheless, a great desire to know more about the certification profile of today's teaching corps (e.g., what percentage of teachers have full certification, probationary certification, alternative certification, emergency certification, or no certification?) and how this profile is changing over time. Each of these teacher-quality issues can be explored from a variety of vantage points using SASS data.*

The *Qualifications* report focuses on the extent to which teachers teach courses they were not trained to teach. Previous research has shown that out-of-field teaching adversely affects student achievement. Goldhaber and Brewer (1996) and Monk and King (1994) looked at the subjects teachers studied in college and graduate school and found that subject matter preparation is related to student achievement even after controlling for relevant teacher and student background and contextual variables.

There are a variety of valid ways in which to define out-of-field teaching. Some measures set a high threshold or standard, while others set a lower one. In this report, for example, the highest threshold is one that requires in-field teachers to have both a major *and* certification in the subject they are teaching, whereas the most lenient threshold requires only that a teacher have a major, a minor, *or* certification. Using the highest standard, 30 percent of English, 31 percent of mathematics, 27 percent of science, and 28 percent of social science students in high school were being taught by out-of-field teachers during the 1999–2000 school year. Using the lower standard, 6 percent of English, 9 percent of mathematics, 6 percent of science, and 6 percent of social science students in high school were being taught by out-of-field teachers. By either standard, the numbers are dramatically higher in middle schools. For example, using the major and certification standard, 58 percent of English, 69 percent of mathematics, 57 percent of science, and 51 percent of social science students in middle school were being taught by out-of-field teachers during the 1999–2000 school year. Using the more lenient major, minor, or certification standard, 17 percent of English, 22 percent of mathematics, 14 percent of science, and

---

*The academic skills of teachers cannot be measured directly with SASS data, but the undergraduate institution that teachers attended can be identified, and this has often been used as a proxy for academic skills.

13 percent of social science students in middle school were being taught by out-of-field teachers.

While the middle school versus high school differential is not surprising, it is surprising that there was a great *decrease* in out-of-field teaching in high schools between 1987–88 and 1999–2000. The decrease is most evident when applying the major, minor, or certification standard, although it is also evident when applying the major and certification standard. For example, between 1987–88 and 1999–2000, the percentages of high school students being taught by teachers without a major, a minor, or certification dropped by almost one-third to over one-half in the following subjects: physical science (dropped from 31 percent of students in 1987–88 to 16 percent of students in 1999–2000), geology (51 percent to 36 percent), physics (40 percent to 17 percent), ESL/bilingual education (54 percent to 31 percent), and English (13 percent to 6 percent). In examining tables B–9 and B–18 from the report (reproduced here), it is clear that the downward shift in out-of-field rates occurred between the 1990–91 and 1993–94 SASS. This finding is surprising in light of news reports throughout the 1990s announcing significant teacher shortages in the nation's largest school districts. If these shortages really did exist nationwide, it would seem likely that out-of-field teaching would have increased during that period. However, NCES not only has nationally representative data on trends in teaching preparedness but also notes that "methodological differences, including differences in survey formats over the years, do not appear to have a major impact on change over time in the estimates." As a result, researchers will want to use the SASS data to determine what really happened in the teacher labor market in the 1990s, so that we can learn from that experience. For example, researchers might want to explore whether the shortages were confined to particular types of districts or schools, regions of the country, or types of communities.

Conclusion

The 1999–2000 SASS data and the *Overview* and *Qualifications* reports are important for the education field. There is much to be learned from them about schools, administrators, and teachers at the turn of this century. There is no question that there were important changes in schools and how they were staffed throughout the 1990s and that these changes are likely to persist into the next decade. The past two decades have seen a sea change in how teachers are trained in the United States. Twenty years ago, only a few states offered alternative certification routes for prospective teachers, and few candidates took this path. Today, 45 states offer such alternatives, which are supplying approximately one-third of the newly hired teachers each year (Feistritzer 2002). In the future, as the current administration focuses its attention and resources squarely on teacher training and quality, the importance of SASS will be elevated to a new level. As the debate rages and begins to sway the teacher-training policies of the federal government and the states, SASS is certain to become an indispensable tool for assessing change. Knowing who comprises the nation's teaching corps, how teachers are allocated among schools (e.g., rich vs. poor, private vs. public, public charter vs. traditional public, BIA vs. traditional public), and how various aspects of school staffing change over time will become more important than ever.

References

Feistritzer, E.C. (2002). *Alternative Teacher Certification: A State-by-State Analysis, 2002*. Washington, DC: National Center for Education Information.

Goldhaber, D.D., and Brewer, D.J. (1996). Evaluating the Effect of Teacher Degree Level on Educational Performance. In W. Fowler, Jr. (Ed.), *Developments in School Finance, 1996* (NCES 97–535). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Gruber, K.J., Wiley, S.D., Broughman, S.P., Strizek, G.A., and Burian-Fitzgerald, M. (2002). *Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools* (NCES 2002–313). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Mayer, D.P., Mullens, J.E., and Moore, M.T. (2001). *Monitoring School Quality: An Indicators Report* (NCES 2001–030). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Monk, D.H., and King, J. (1994). Multi-Level Teacher Resource Effects on Pupil Performance in Secondary Mathematics and Science: The Role of Teacher Subject Matter Preparation. In R. Ehrenberg (Ed.), *Contemporary Policy Issues: Choices and Consequences in Education*. Ithaca, NY: ILR Press.

Mullens, J.E., and Kasprzyk, D. (Eds.). (1997). *The Schools and Staffing Survey: Recommendations for the Future* (NCES 97–596). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Seastrom, M.M., Gruber, K.J., Henke, R., McGrath, D.J., and Cohen, B.A. (2002). *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching, 1987–88 to 1999–2000* (NCES 2002–603). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Wiley, S.D., Reynolds, K.A., Cobb, A., and Luekens, M.T. (1999). *Secondary Use of the Schools and Staffing Survey Data* (NCES 1999–17). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Table B-9.—Percentage of public school students who were taught by a high school grades (9–12) teacher with an undergraduate or graduate major and certification in the course subject area, by course subject area: 1987–88 to 1999–2000

	Major in field			No major in field			
	Total	Certified	Not certified	Total	Certified	Not certified	Total certified
1999–2000							
English	77.7	70.2	7.4	22.3	15.5	6.8	85.7
Foreign language	58.8	52.4	6.4	41.2	26.7	14.5	79.1
Mathematics	75.4	68.6	6.8	24.6	14.5	10.1	83.1
Science	81.3	72.7	8.6	18.7	12.1	6.6	84.8
Biology/life science	62.4	55.3	7.1	37.6	26.6	11.0	81.9
Physical science	41.4	36.9	4.5	58.6	40.5	18.1	77.4
Chemistry	44.1	38.9	5.2	55.9	42.8	13.1	81.7
Geology	24.0	21.4	2.6	76.0	38.0	37.9	59.4
Physics	41.6	33.5	8.1	58.4	40.2	18.2	73.7
Social science	80.6	72.1	8.5	19.4	12.4	7.0	84.5
History	41.1	37.5	3.5	56.9	49.2	9.8	86.7
ESL/bilingual education	38.2	29.2	9.0	61.8	30.6	31.1	59.8
Arts and music	89.3	80.4	8.9	10.7	5.2	5.4	85.6
Physical education/health education	87.0	80.9	6.1	13.0	8.1	4.9	89.0
Health education	47.7	42.3	5.4	52.3	32.5	19.8	74.8
Physical education	85.9	76.1	9.8	14.1	8.9	5.2	85.0
1993–94							
English	78.2	73.7	4.5	21.8	12.4	9.3	86.2
Foreign language	70.0	65.0	5.0	30.0	21.9	8.2	86.8
Mathematics	72.2	66.7	5.5	27.8	14.2	13.6	80.9
Science	79.9	74.5	5.4	20.1	13.6	6.5	88.1
Biology/life science	67.0	60.1	6.9	33.1	23.9	9.1	84.0
Physical science	39.0	35.2	3.8	61.0	45.1	16.0	80.2
Chemistry	43.6	41.9	1.7	56.4	43.1	13.3	85.0
Geology	31.1	26.5	4.7	68.9	38.3	30.6	64.8
Physics	35.0	30.3	4.7	65.0	44.7	20.3	75.0
Social science	79.0	71.4	7.6	21.0	13.6	7.4	85.0
History	45.8	41.3	4.5	54.2	44.2	10.0	85.5
ESL/bilingual education	26.9	23.5	3.4	73.1	43.6	29.5	67.1
Arts and music	86.6	79.7	6.9	13.4	5.3	8.1	85.0
Physical education/health education	89.0	82.4	6.6	11.0	6.5	4.5	88.9
1990–91							
English	71.7	65.0	6.7	28.3	17.6	10.7	82.6
Foreign language	54.4	48.2	6.2	45.6	34.1	11.5	82.3
Mathematics	66.7	61.9	4.8	33.3	19.3	13.9	81.3
Science	76.9	71.2	5.8	23.1	15.4	7.7	86.5
Biology/life science	55.8	48.2	7.6	44.2	32.9	11.4	81.0
Physical science	32.5	26.9	5.6	67.5	34.4	33.2	61.3
Chemistry	35.2	31.9	3.3	64.8	46.3	18.5	78.2
Geology	21.5	18.4	3.2	78.5	34.5	44.0	52.8
Physics	21.2	17.0	4.2	78.8	35.2	43.6	52.2
Social science	75.8	64.0	11.8	24.2	13.4	10.8	77.4
History	37.6	31.8	5.8	62.5	47.9	14.6	79.7
ESL/bilingual education	18.8	15.0	3.8	81.3	31.1	50.1	46.1
Arts and music	87.3	77.5	9.8	12.7	6.0	6.7	83.5
Physical education/health education	86.9	78.8	8.2	13.1	6.2	6.9	85.0
1987–88							
English	68.0	61.8	6.2	32.0	16.3	15.7	78.1
Mathematics	67.2	62.6	4.7	32.8	19.8	13.0	82.3
Science	74.5	69.6	4.9	25.5	15.1	10.4	84.8
Biology/life science	60.1	52.3	7.8	39.9	28.6	11.3	81.0
Physical science	35.0	29.8	5.2	65.0	25.2	39.9	55.0
Chemistry	41.6	37.1	4.5	58.4	33.8	24.6	70.9
Geology	20.1	16.9	3.2	79.9	26.9	53.0	43.7
Physics	25.5	18.4	7.1	74.5	26.3	48.2	44.7
Social science	72.0	66.3	5.7	28.0	17.4	10.7	83.6
History	40.1	37.9	2.2	59.9	45.3	14.7	83.2
ESL/bilingual education	13.4	11.3	2.2	86.6	31.3	55.3	42.6
Arts and music	90.0	84.3	5.7	10.0	6.2	3.8	90.5
Physical education/health education	84.0	75.2	8.8	16.0	8.4	7.7	83.5

NOTE: High school teachers include all teachers who taught any of grades 10–12, as well as teachers who taught grade 9 and no other grades. Not all assignment areas were measured in each SASS administration. Detail may not add to totals because of rounding.

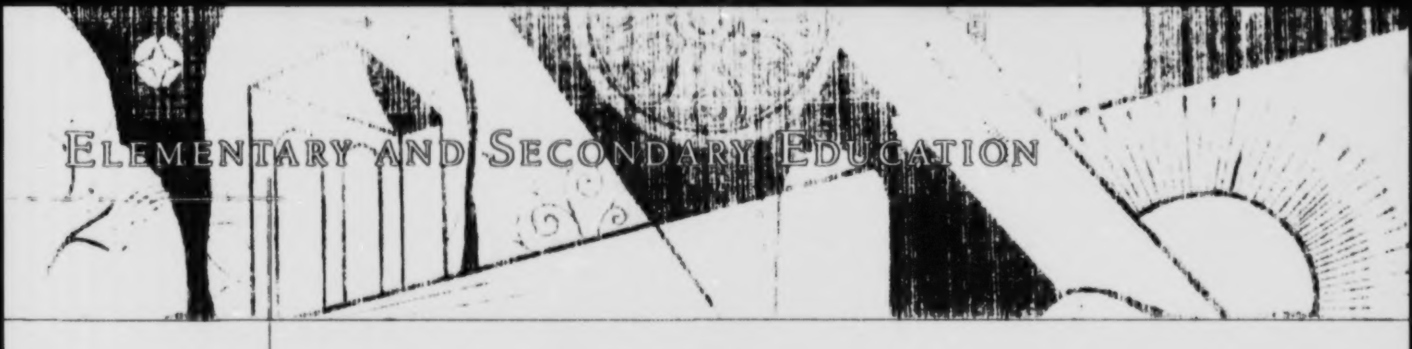
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," 1987–88, 1990–91, 1993–94, and 1999–2000, and "Charter Teacher Questionnaire," 1999–2000. (Originally published on p. 62 of *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000* [Seastrom et al. 2002].)

Table B-18.—Percentage of public school students who were taught by a high school grades (9–12) teacher with an undergraduate or graduate major or minor and certification in the course subject area, by year and course subject area: 1987–88 to 1999–2000

	Major/minor in field			No major/minor in field			
	Total	Certified	Not certified	Total	Certified	Not certified	Total certified
				1999–2000			
English	84.4	75.7	8.7	15.6	10.0	5.6	85.7
Foreign language	68.7	58.9	9.8	31.3	20.2	11.1	79.1
Mathematics	81.9	73.6	8.3	18.1	9.5	8.6	83.1
Science	86.4	76.7	9.6	13.6	8.1	5.5	84.8
Biology/life science	68.7	60.3	8.4	31.3	21.6	9.7	81.9
Physical science	54.1	47.0	7.1	45.9	30.4	15.5	77.4
Chemistry	61.4	52.5	8.9	38.6	29.2	9.4	81.7
Geology	28.5	24.2	4.3	71.5	35.2	36.3	59.4
Physics	49.5	40.3	9.3	50.5	33.4	17.0	73.7
Social science	86.0	76.4	9.6	14.0	8.1	5.9	84.5
History	47.1	42.1	4.9	52.9	44.6	8.4	86.7
ESL/bilingual education	41.7	32.7	9.0	58.3	27.2	31.1	59.9
Arts and music	91.5	82.1	9.4	8.5	3.6	5.0	85.7
Physical education/health education	89.0	82.4	6.6	11.0	6.6	4.5	89.0
Health education	59.9	52.2	7.7	40.1	22.5	17.6	74.7
Physical education	87.8	77.6	10.2	12.2	7.4	4.8	85.0
				1993–94			
English	84.5	78.9	5.6	15.5	7.3	8.3	86.2
Foreign language	78.6	72.3	6.3	21.4	14.5	6.9	86.8
Mathematics	79.8	73.1	6.7	20.2	7.8	12.5	80.9
Science	88.4	81.6	6.9	11.6	6.5	5.1	88.1
Biology/life science	75.0	66.3	8.7	25.0	17.8	7.3	84.0
Physical science	53.8	47.3	6.5	46.2	33.0	13.3	80.2
Chemistry	60.9	56.5	4.4	39.1	28.5	10.6	85.0
Geology	35.8	30.6	5.2	64.3	34.2	30.1	64.8
Physics	46.9	39.8	7.2	53.1	35.3	17.8	75.0
Social science	87.8	78.5	9.3	12.2	6.5	5.7	85.0
History	53.1	47.6	5.5	46.9	37.9	9.0	85.5
ESL/bilingual education	28.8	24.6	4.2	71.2	42.4	28.8	67.1
Arts and music	87.9	80.8	7.1	12.1	4.2	7.9	85.0
Physical education/health education	91.3	84.3	7.0	8.7	4.6	4.1	88.9
				1990–91			
English	84.4	75.5	8.9	15.6	7.1	8.5	82.6
Foreign language	68.3	59.2	9.2	31.7	23.1	8.5	82.3
Mathematics	80.0	72.9	7.1	20.0	8.4	11.6	81.3
Science	89.2	81.1	8.2	10.8	5.5	5.3	86.5
Biology/life science	69.4	58.6	10.8	30.6	22.4	8.2	81.0
Physical science	52.6	40.9	11.7	47.4	20.3	27.1	61.3
Chemistry	59.4	50.8	8.6	40.6	27.4	13.2	78.2
Geology	31.1	27.3	3.8	68.9	25.6	43.4	52.8
Physics	36.3	26.1	10.2	63.8	26.1	37.7	52.2
Social science	89.1	73.1	16.0	10.9	4.3	6.6	77.4
History	49.2	40.6	8.6	50.8	39.1	11.8	79.7
ESL/bilingual education	23.6	17.7	5.9	76.4	28.4	48.0	46.1
Arts and music	92.9	80.8	12.0	7.2	2.7	4.5	83.5
Physical education/health education	91.7	81.4	10.2	8.3	3.6	4.8	85.0
				1987–88			
English	80.2	71.3	8.9	19.8	6.8	13.0	78.1
Mathematics	81.8	75.3	6.6	18.2	7.1	11.1	82.3
Science	87.0	79.9	7.2	13.0	4.9	8.1	84.8
Biology/life science	73.1	63.3	9.8	26.9	17.6	9.3	81.0
Physical science	52.8	38.7	14.1	47.2	16.2	30.9	55.0
Chemistry	60.4	48.1	12.3	39.6	22.8	16.8	70.9
Geology	28.2	22.8	5.4	71.8	20.9	50.9	43.7
Physics	41.8	26.8	15.0	58.2	17.9	40.3	44.7
Social science	87.0	78.1	8.9	13.0	5.5	7.5	83.6
History	53.5	49.6	3.8	46.5	33.5	13.0	83.2
ESL/bilingual education	21.4	18.4	3.0	78.6	24.1	54.4	42.6
Arts and music	93.5	87.3	6.2	6.5	3.2	3.3	90.5
Physical education/health education	89.1	78.2	10.9	10.9	5.3	5.6	83.5

NOTE: High school teachers include all teachers who taught any of grades 10–12, as well as teachers who taught grade 9 and no other grades. Not all assignment areas were measured in each SASS administration. Detail may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," 1987–88, 1990–91, 1993–94, and 1999–2000, and "Charter Teacher Questionnaire," 1999–2000. (Originally published on p. 71 of *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000* [Seastrom et al. 2002].)



ELEMENTARY AND SECONDARY EDUCATION

The Nation's Report Card: Geography 2001
Andrew R. Weiss, Anthony D. Lutkus, Barbara S. Hildebrant, and Matthew S. Johnson 25

Vocational Education Offerings in Rural High Schools
Lisa Hudson and Linda Shafer 38

Public Alternative Schools and Programs for Students at Risk of Education Failure: 2000–01
Brian Kleiner, Rebecca Porch, and Elizabeth Farris 42

Overview of Public Elementary and Secondary Schools and Districts: School Year 2000–01
Lee M. Hoffman 48

Public High School Dropouts and Completers From the Common Core of Data: School Years 1998–99 and 1999–2000
Beth Aronstamm Young 63

Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2000–01
Beth Aronstamm Young 70

The Nation's Report Card: Geography 2001

Andrew R. Weiss, Anthony D. Lutkus, Barbara S. Hildebrant, and Matthew S. Johnson

This article was excerpted from* The Nation's Report Card: Geography Highlights 2001*, a tabloid-style publication that summarizes the complete report. The sample survey data are from the National Assessment of Educational Progress (NAEP) 1994 and 2001 Geography Assessments.

Introduction

The National Assessment of Educational Progress (NAEP) is the nation's only ongoing representative sample survey of student achievement in core subject areas. Authorized by Congress, administered by the National Center for Education Statistics (NCES) in the U.S. Department of Education, and overseen by the National Assessment Governing Board (NAGB), NAEP regularly reports to the public on the educational progress of students in grades 4, 8, and 12.

In 2001, NAEP conducted a geography assessment of the nation's fourth-, eighth-, and twelfth-grade students. The report summarized in this article presents the results of the NAEP 2001 Geography Assessment for the nation, along with several sample questions and student responses from the assessment. Results of the 2001 geography assessment are compared to results of the preceding NAEP geography assessment, which was conducted in 1994 and was the only other geography assessment in which the test questions were based on the current framework.

NAEP geography framework

The NAEP geography framework that describes the content for both the 1994 and 2001 assessments was developed through a national consensus process and adopted by NAGB. The geography framework is organized along two dimensions, a content dimension and a cognitive dimension. The content dimension is divided into three areas: Space and Place, Environment and Society, and Spatial Dynamics and Connections. The three cognitive areas are labeled as Knowing, Understanding, and Applying. The complete framework is available at the NAGB web site at http://www.nagb.org.

BEST COPY AVAIL

Scale scores and achievement levels

Students' performance on the assessment is described in terms of average scores on a 0–500 scale and in terms of the percentage of students attaining three achievement levels: *Basic*, *Proficient*, and *Advanced*. The achievement levels are performance standards adopted by NAGB as part of its statutory responsibilities. They represent collective judgments of what students should know and be able to do.

- *Basic* denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient* represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced* signifies superior performance.

As provided by law, the Deputy Commissioner of Education Statistics, upon review of a congressionally mandated evaluation of NAEP, has determined that the achievement levels are to be used on a trial basis and should be interpreted and used with caution. However, both the Deputy Commissioner and NAGB believe that these performance standards are useful for understanding trends in student achievement. NAEP achievement levels have been widely used by national and state officials as a common yardstick of academic performance. Detailed descriptions of the NAEP geography achievement levels can be found on the NAEP web site at http://nces.ed.gov/nationsreportcard.

In addition to providing average scores and achievement-level performance in geography for the nation's fourth-, eighth-, and twelfth-graders, the report provides results for subgroups of students at those grade levels defined by various background and contextual characteristics.

Accommodations and samples

The results in this article are based on a national sample that included special-needs students; however, no testing accommodations were offered to these students. As a consequence, a small percentage of sampled students were excluded from the assessment because they could not be tested meaningfully without accommodations. No testing accommodations were offered in 1994 or 2001 so that results from the two assessment years could be compared. However, a second set of 2001 results is available that is based on a sample for which accommodations were provided. This second set of results is presented in the full report and on the NAEP web site at http://nces.ed.gov/nationsreportcard. In addition, the percentage of students excluded from both samples is provided.

Major Findings

Improvements seen in NAEP 2001 geography results at grades 4 and 8

Results for the NAEP 2001 Geography Assessment show that the average scores of fourth- and eighth-grade students have improved since 1994 (figure A). The average score of twelfth-grade students, however, has not changed significantly.

Gains seen in fourth- and eighth-graders' 2001 achievement-level performance

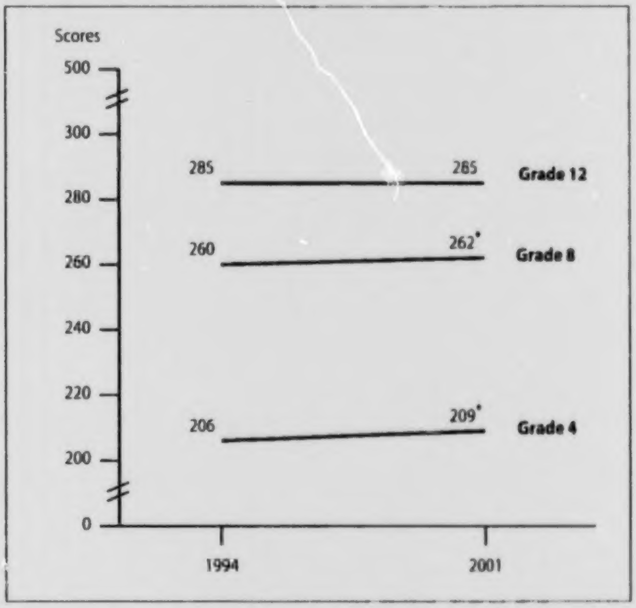
The 2001 geography assessment results show some changes since 1994 in the percentages of students at or above the NAEP achievement levels (figure B). At grades 4 and 8, the percentage of students performing at or above *Basic* increased between 1994 and 2001, although there were no statistically significant changes in the percentages of students performing at or above *Proficient* and at *Advanced*. At grade 12, however, the percentages of students performing at or above the *Basic* and *Proficient* levels and at *Advanced* in 2001 were not statistically different from 1994.

Gains made by lower-performing fourth- and eighth-graders

Looking at how scores changed across the performance distribution clarifies the source of the improvement in the average national score at grades 4 and 8. An examination of scores at different percentiles on the 0–500 geography scale at each grade indicates whether or not the changes seen in the national average score results are reflected in the performance of lower-, middle-, and higher-performing students. The percentile indicates the percentage of students whose scores fell below a particular average score.

As shown in figure C, there were some changes between 1994 and 2001 at various points in the score distribution for fourth- and eighth-graders, but no statistically significant changes for twelfth-graders. At grades 4 and 8, score increases between 1994 and 2001 at the 10th and 25th percentiles indicate an improvement for lower-performing students. At grade 12, performance across the score distribution in 2001 was not statistically different from 1994—a finding that reflects the results seen in the overall national average score at this grade.

Figure A.—Average geography scale scores, grades 4, 8, and 12: 1994 and 2001



*Significantly different from 1994.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments. (Previously published on p. 1 of *The Nation's Report Card: Geography Highlights 2001.*)

Results for Student Subgroups

In addition to reporting information on all students' performance on its assessments, NAEP also studies the performance of various subgroups of students. The geography achievement of subgroups of students in 2001 reveals whether they have progressed since 1994, as well as how they performed in comparison to other subgroups in 2001.

When reading these subgroup results, it is important to keep in mind that there is no simple, cause-and-effect relationship between membership in a subgroup and achievement on NAEP. A complex mix of educational and socioeconomic factors may interact to affect student performance.

Average geography scores by gender

There were no statistically significant changes from 1994 to 2001 in the average geography scores of either male or female students at any of the three grades. (Although the score point differences across years for both male and female students at grades 4 and 8 appear similar to those for the population as a whole, the smaller sample size and slightly larger standard error for each of the two subgroups prevented the statistical tests from reaching the significant level.)

In 2001, male students at all three grades had higher average scores than female students. The gap between male and female students' average scores did not change significantly between 1994 and 2001.

Achievement-level results by gender

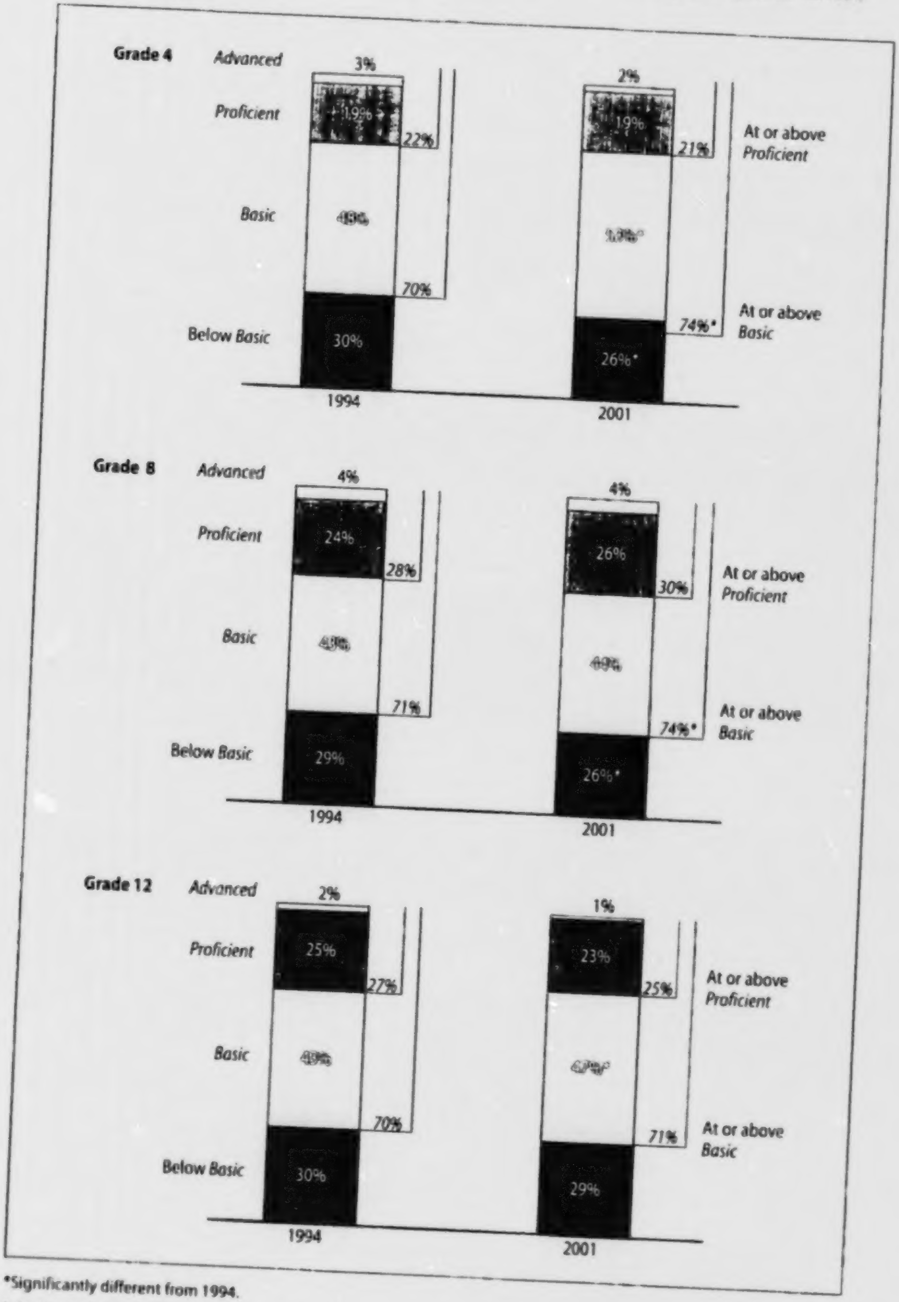
The percentages of male and female students at or above the *Basic* and *Proficient* geography achievement levels did not change significantly between 1994 and 2001 at any of the three grades.

A comparison of the differences in the percentages of male and female students at or above the *Basic* and *Proficient* levels in 2001 shows higher percentages of male than of female students at or above *Proficient* at grades 4 and 8. At grade 12, a higher percentage of males than females were at or above *Basic* and at or above *Proficient*.

Average geography scores by race/ethnicity

Students who took the NAEP geography assessment were asked to indicate which of the following racial/ethnic subgroups best described them: White, Black, Hispanic, Asian/Pacific Islander, or American Indian (including Alaska Native). Average geography scores were reported for

Figure B.—Percentage of students within and at or above achievement levels, grades 4, 8, and 12: 1994 and 2001



*Significantly different from 1994.

NOTE: Percentages within each geography achievement-level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

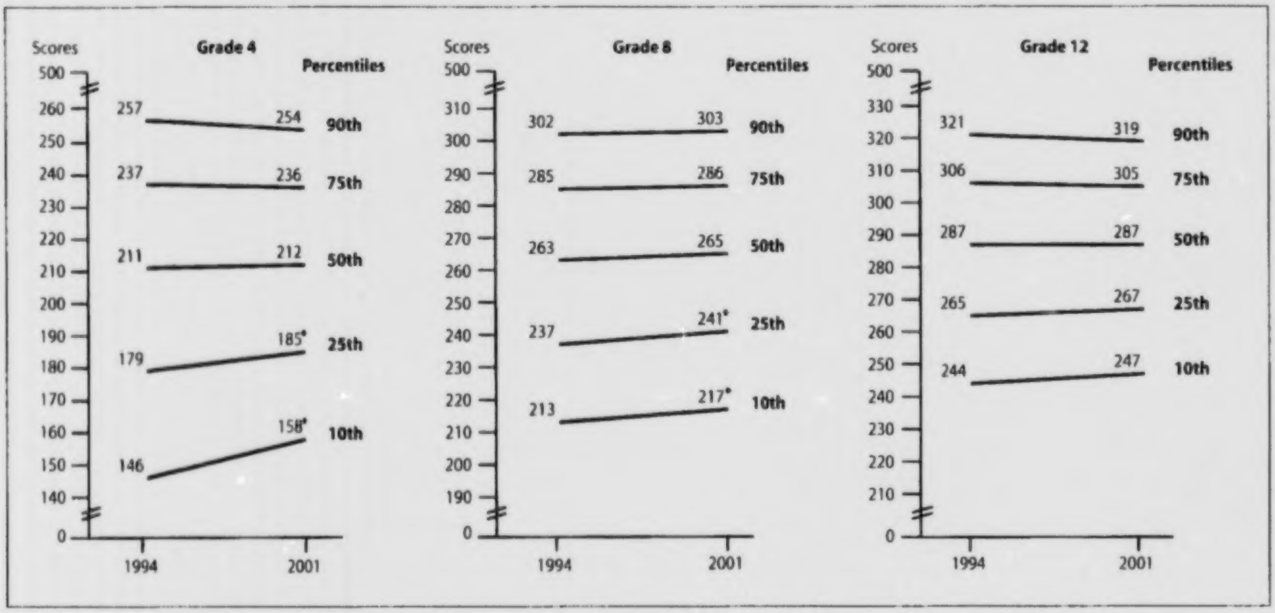
HOW TO READ THIS FIGURE:

- The *italicized* percentages to the right of the shaded bars represent the percentages of students at or above *Basic* and *Proficient*.
- The percentages in the shaded bars represent the percentages of students within each achievement level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments. (Previously published on p. 2 of *The Nation's Report Card: Geography Highlights 2001*.)

BEST COPY AVAILABLE

Figure C.—Scale score percentiles, grades 4, 8, and 12: 1994 and 2001



*Significantly different from 1994.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments. (Previously published on p. 3 of *The Nation's Report Card: Geography Highlights 2001*.)

students in these subgroups at grades 4, 8, and 12 in 1994 and 2001. At grade 4, the average score of Black students was higher in 2001 than in 1994. Apparent changes for other groups of students were not statistically significant.

The 2001 results show a continuing pattern of average score differences between the racial/ethnic subgroups. At all three grades, White students, Asian/Pacific Islander students, and American Indian students had higher average scores than their Black and Hispanic peers. Hispanic students had higher average scores than Black students at grades 8 and 12.

Average geography score gaps between selected racial/ethnic subgroups

Average score differences in 1994 and 2001 between White students and Black students and between White students and Hispanic students are presented in figure D. Results from the 2001 geography assessment reflect a narrowing of the score gap between White students and Black students at grade 4.

Achievement-level results by race/ethnicity

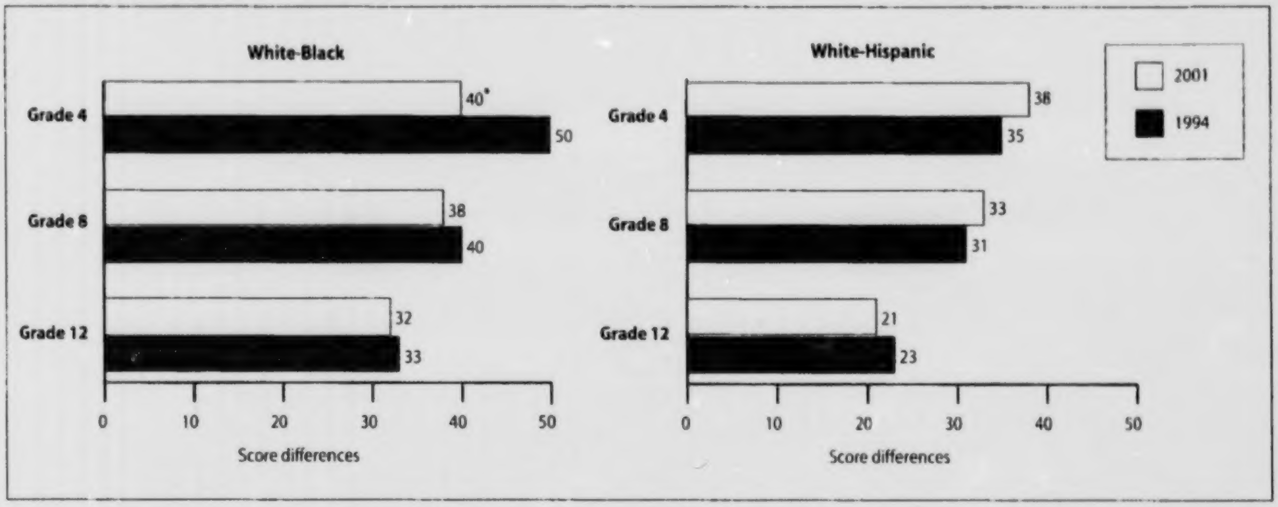
While there have been some gains in achievement-level results since 1994 at grades 4 and 8, not all subgroups of students have improved. At grade 4, both White students and Black students had higher percentages at or above *Basic* in 2001 compared to 1994. At grade 8, White students were the only group to show any improvement, with an increase in the percentage at or above *Basic*. At grade 12, none of the apparent changes in the percentages of students at or above the *Basic* and *Proficient* geography achievement levels from 1994 to 2001 were statistically significant.

Comparing the subgroups' performance in 2001 shows higher percentages of White and Asian/Pacific Islander students than of Black and Hispanic students at or above the *Basic* and *Proficient* levels at all three grades. There were also higher percentages of American Indian students than of Black or Hispanic students at or above *Basic* at all three grades and higher percentages at or above *Proficient* at grade 12.

Average geography scores by type of school

Schools that participate in NAEP assessments are classified as either public or nonpublic. Looking at students' performance within school type indicates that eighth-grade public school students' average score was higher in 2001 than in 1994. None of the other apparent changes by school type were statistically significant.

Figure D.—Score differences by race/ethnicity, grades 4, 8, and 12: 1994 and 2001



*Significantly different from 1994.

NOTE: Score differences are calculated based on differences between unrounded average scale scores.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments. (Previously published on p. 6 of *The Nation's Report Card: Geography Highlights 2001*.)

In 2001, as in 1994, fourth-, eighth-, and twelfth-graders attending nonpublic schools had higher scores, on average, than their peers attending public schools. Readers should, however, avoid making assumptions about the comparative quality of instruction in public and nonpublic schools when reading this information. Socioeconomic and sociological factors that may affect student performance should be considered before interpreting these results. Additional information about the performance of students by type of school can be found in the full report, as well as on the NAEP web site at http://nces.ed.gov/nationsreportcard.

Achievement-level results by type of school

Achievement-level results for students attending public and nonpublic schools indicate that a higher percentage of eighth-grade public school students were at or above the *Basic* achievement level in 2001 than in 1994. Comparing student performance by type of school in 2001 shows that higher percentages of nonpublic school students than of public school students were at or above the *Basic* and the *Proficient* achievement levels at all three grades.

Teacher and Student Factors

Students who participated in the NAEP 2001 Geography Assessment and their teachers answered questions related to their background and their experiences at school. The responses were used to investigate whether relationships exist between these factors and students' performance on the geography assessment. While some of these findings may suggest positive or negative relationships between performance and particular factors, it is important to note that these relationships are not necessarily causal: there are many factors that may play a role in students' geography performance.

Computer use

Using computers to enhance learning has been an important challenge for educators in all content areas. The teachers of fourth- and eighth-grade students who participated in the NAEP 2001 Geography Assessment were asked about the extent to which they use CD-ROMs or the Internet for social studies instruction.

CD-ROM use at grades 4 and 8. Fourth- and eighth-graders in 2001 whose teachers reported having their students use CD-ROMs to a small or moderate extent had higher average geography scores than those whose teachers reported not having them use CD-ROMs at all. About two-thirds of fourth- and eighth-graders had teachers who reported having students use CD-ROMs to look up information in reference works.

Internet use at grades 4 and 8. As shown in figure E, fourth-graders in 2001 whose teachers had their students use the Internet to a small or moderate extent had higher average geography scores than those whose teachers did not have them use the Internet at all. Eighth-graders whose teachers had them use the Internet to a large extent had higher average scores than those whose teachers had them use the Internet to a small extent or not at all. Figure F indicates that about two-thirds of fourth-graders and four-fifths of eighth-graders in 2001 had teachers who reported having their students use the Internet to retrieve information.

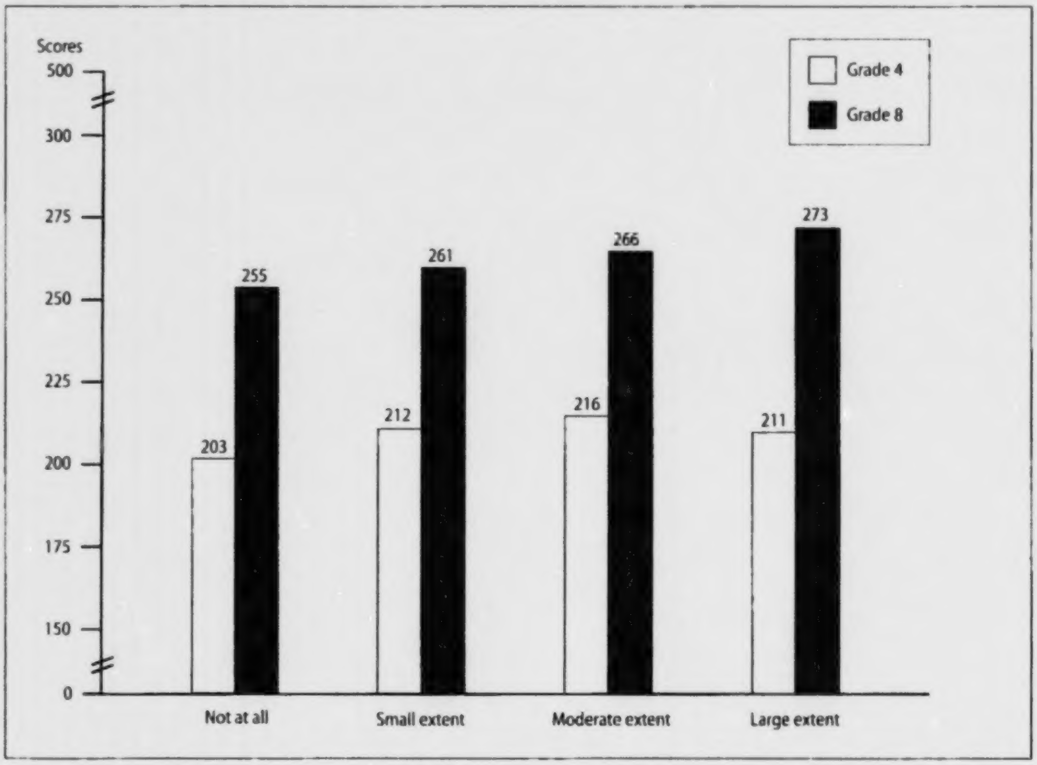
Internet and CD-ROM use at grade 12. Twelfth-graders who reported using the Internet and CD-ROMs to a moderate or large extent had a higher average score than those who said they did so to a small extent or not at all. About three-quarters of twelfth-graders used the Internet and CD-ROMs.

Geography topics studied: countries and cultures

At grades 8 and 12, students were asked how frequently they studied countries and cultures. In 2001, 63 percent of eighth-graders said they studied countries and cultures almost every day or once or twice a week. Eighth-graders who never or hardly ever studied countries and cultures had lower scores, on average, than students who did so at least once or twice a month.

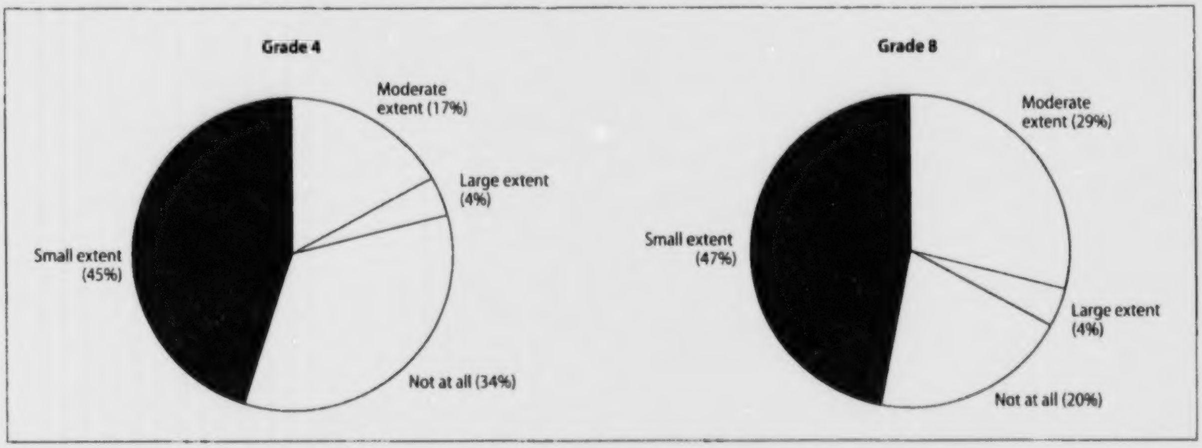
At grade 12, 52 percent of students reported studying this topic almost every day or weekly. Furthermore, twelfth-graders who never or hardly ever studied countries and cultures had lower

Figure E.—Fourth- and eighth-grade average scores by extent of Internet use: 2001



SOURCE: U.S Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2001 Geography Assessment. (Previously published on p. 10 of *The Nation's Report Card: Geography Highlights 2001*.)

Figure F.—Percentage of fourth- and eighth-graders by extent of Internet use: 2001



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2001 Geography Assessment. (Previously published on p. 10 of *The Nation's Report Card: Geography Highlights 2001*.)

average scores than students who did so at least once or twice a month.

Sample Geography Questions and Student Responses

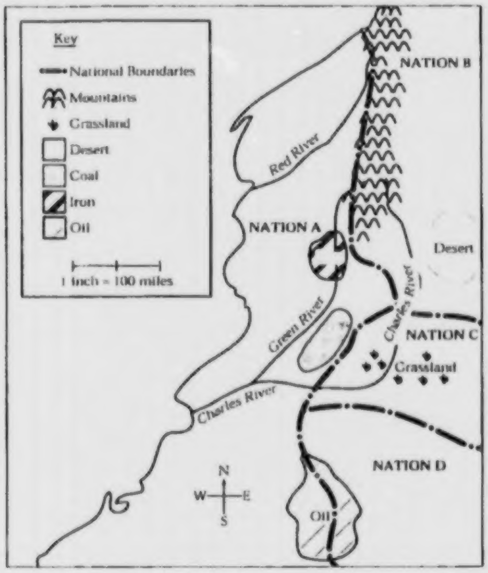
A better understanding of students' performance on the NAEP 2001 Geography Assessment can be gained by examining sample test questions and students' responses to them. The questions shown here—one multiple-choice and one or two constructed-response questions for each grade—were used in the 2001 geography assessment. The content area is identified for each sample question. The tables that accompany the sample questions show two types of percentages: the overall percentage of students answering the question successfully and the percentage of students at each achievement level answering successfully.

For the multiple-choice questions shown, the oval corresponding to the correct multiple-choice response is filled in. For the constructed-response questions, sample student responses are presented along with brief descriptions of how the responses were scored. Because it was a timed test of geography knowledge and skills, scoring was based solely on content—students may have made minor spelling and grammatical errors that would not have affected their score. Additional sample questions can be viewed on the NAEP web site at http://nces.ed.gov/nationsreportcard.

Grade 4 sample questions and responses

The following multiple-choice question assessed students' understanding of how geography plays a role in conflict among nations. The geography content area is Spatial Dynamics and Connections.

Sample multiple-choice question for grade 4



Which two nations are most likely to have a conflict over mineral resources?

- Ⓐ *Nation A and Nation B*
- Ⓑ *Nation A and Nation C*
- ● *Nation A and Nation D*
- Ⓓ *Nation C and Nation D*

Percentage of students giving correct response

	Within achievement-level intervals			
Overall	Below *Basic* (186 and below*)	*Basic* (187–239*)	*Proficient* (240–275*)	*Advanced* (276 and above*)
33	22	28	56	‡

*NAEP geography scale range.
‡Reporting standards not met.

The following extended constructed-response question required students to draw a map on a grid using written descriptions of features of a town. The geography content area is Space and Place. Responses to the question were scored according to a four-level guide as "Complete," "Essential," "Partial," or "Inappropriate."

Sample extended constructed-response question for grade 4

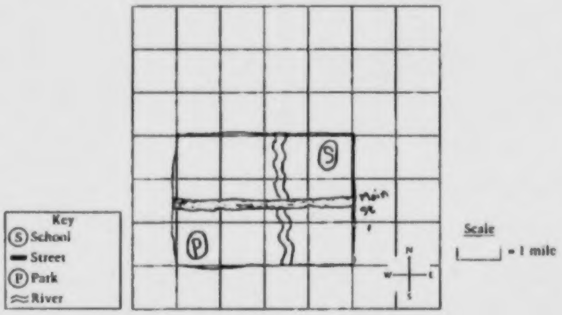
LITTLE TOWN

–Width: 4.0 miles east to west
–Length: 3.0 miles north to south
–Main Street runs east to west through the town.
–The school is on the northeast side of town.
–Phelps Park is on the southwest side of town.
–Runt River runs north to south through the town.

On the grid below, each square is one mile wide and one mile long. Draw a map of Little Town on the grid. Draw the town's borders. Then, use the symbols in the key below to draw the features listed above.

Sample "Complete" response

Responses scored "Complete" correctly located all four features listed in the question and drew the length and width to scale in the correct direction.



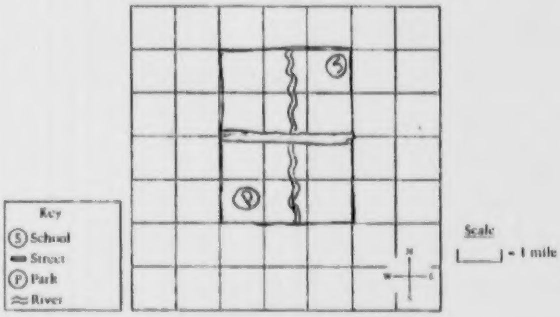
Percentage of students giving "Complete" response

	Within achievement-level intervals			
Overall	Below *Basic* (186 and below*)	*Basic* (187–239*)	*Proficient* (240–275*)	*Advanced* (276 and above*)
11	0	6	32	‡

*NAEP geography scale range.
‡Reporting standards not met.

Sample "Essential" response

This "Essential" response correctly located the four listed features but did not correctly draw the length and width to scale.



Percentage of students giving "Essential" or better response				
	Within achievement-level intervals			
Overall	Below *Basic* (186 and below*)	*Basic* (187–239*)	*Proficient* (240–275*)	*Advanced* (276 and above*)
28	1	25	65	‡

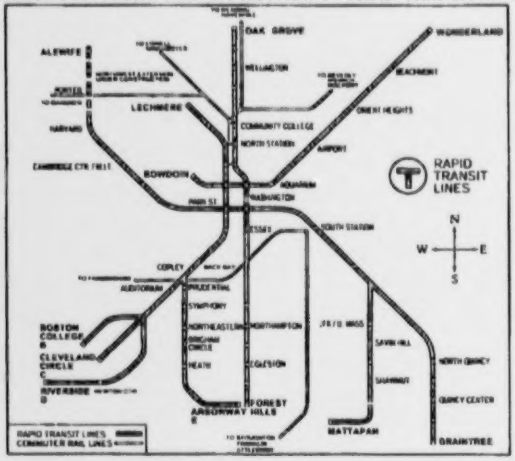
*NAEP geography scale range.
‡Reporting standards not met.

Grade 8 sample questions and responses

The following multiple-choice question asked students to interpret a kind of map they may never have seen to determine exactly what kind of information it provides and doesn't provide. The geography content area is Spatial Dynamics and Connections.

Sample multiple-choice question for grade 8

MASSACHUSETTS BAY TRANSIT AUTHORITY RAPID TRANSIT LINES



Which question could you answer based only on the information in the map?

Ⓐ *At what times do the public trains arrive?*

Ⓑ *How much time does it take to go from Forest Hills to Oak Grove?*

Ⓒ *How many miles is it from one station to another?*

● *How can one travel from Alewife to the Aquarium by public train?*

Percentage of students giving correct response				
	Within achievement-level intervals			
Overall	Below *Basic* (241 and below*)	*Basic* (242–281*)	*Proficient* (282–314*)	*Advanced* (315 and above*)
70	37	74	91	97

*NAEP geography scale range.

The following short constructed-response question measured students' understanding of the interaction between human beings and the environment. The geography content area is Environment and Society. Responses to the question were scored according to a three-level guide as "Complete," "Partial," or "Inappropriate."

Sample short constructed-response question for grade 8

Tropical forests are being destroyed at the rate of at least eleven million hectares each year, an area the size of Pennsylvania. About half of all tropical forests are already gone.

Discuss two major reasons for this high rate of tropical deforestation.

Sample "Complete" response

Responses scored "Complete" provided two reasons for the high rate of tropical deforestation.

One reason is the building of cities.
The people use the rainforests as land
Another reason is for agriculture
The people find the farms more
useful than rainforests.

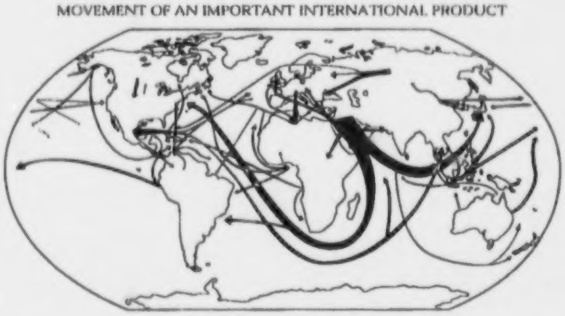
Percentage of students giving "Complete" response				
	Within achievement-level intervals			
Overall	*Below Basic* (241 and below*)	*Basic* (242–281*)	*Proficient* (282–314*)	*Advanced* (315 and above*)
22	6	18	38	‡

*NAEP geography scale range.
‡Reporting standards not met.

Grade 12 sample questions and responses

The following multiple-choice question asked students to demonstrate an understanding of the conventions used in what is known as a "flow map." The geography content area is Space and Place.

Sample multiple-choice question for grade 12


MOVEMENT OF AN IMPORTANT INTERNATIONAL PRODUCT

The varying widths of the lines on the map most probably indicate the

- Ⓐ *strength of ocean currents*
- Ⓑ *type of trade*
- ● *volume of trade*
- Ⓓ *type of transportation used*

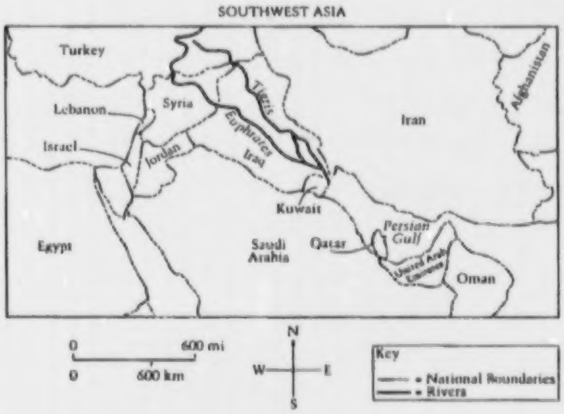
Percentage of students giving correct response				
	Within achievement-level intervals			
Overall	*Below Basic* (269 and below*)	*Basic* (270–304*)	*Proficient* (305–338*)	*Advanced* (339 and above*)
78	46	86	99	‡

*NAEP geography scale range.
‡Reporting standards not met.

BEST COPY AVAILABLE

The following short constructed-response question deals with the interaction between humans and the natural environment. Although some students may have been able to answer without referring to the map, others could use it to gain valuable information about the region. The geography content area is Environment and Society. Responses to the question were scored according to a three-level guide as "Complete," "Partial," or "Inappropriate."

Sample short constructed-response question for grade 12



Give two reasons why early civilizations flourished in the valley of the Tigris and Euphrates rivers.

Sample "Complete" response

Responses scored "Complete" provided two valid reasons why river valleys were important to the early civilization of Iraq.

The Tigris and Euphrates Rivers made these early civilizations flourish because of farming, trading, and a way of transportation. These rivers were their main source of everything like watering animals and rich, fertile farmland.

Percentage of students giving "Complete" response

Overall	Below *Basic* (269 and below*)	*Basic* (270–304*)	*Proficient* (305–338*)	*Advanced* (339 and above*)
	Within achievement-level intervals			
47	17	52	70	‡

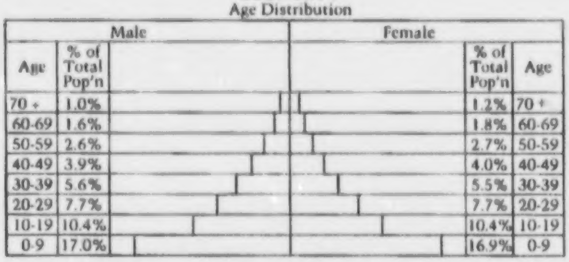
*NAEP geography scale range.

‡Reporting standards not met.

The following short constructed-response question measured students' ability to read and understand population pyramids. The geography content area is Spatial Dynamics and Connections. Responses to the question were scored according to a three-level guide as "Complete," "Partial," or "Inappropriate."

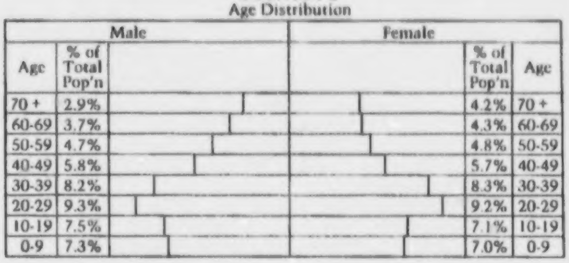
Sample short constructed-response question for grade 12

COUNTRY 1
Age Distribution



Male Age	Male % of Total Pop'n	Female % of Total Pop'n	Female Age
70 +	1.0%	1.2%	70 +
60-69	1.6%	1.8%	60-69
50-59	2.6%	2.7%	50-59
40-49	3.9%	4.0%	40-49
30-39	5.6%	5.5%	30-39
20-29	7.7%	7.7%	20-29
10-19	10.4%	10.4%	10-19
0-9	17.0%	16.9%	0-9

COUNTRY 2
Age Distribution



Male Age	Male % of Total Pop'n	Female % of Total Pop'n	Female Age
70 +	2.9%	4.2%	70 +
60-69	3.7%	4.3%	60-69
50-59	4.7%	4.8%	50-59
40-49	5.8%	5.7%	40-49
30-39	8.2%	8.3%	30-39
20-29	9.3%	9.2%	20-29
10-19	7.5%	7.1%	10-19
0-9	7.3%	7.0%	0-9

Describe the difference in population patterns for people age 60 and over in countries 1 and 2. Give one possible explanation for the difference you have identified.

BEST COPY AVAILABLE

Sample "Complete" response

Responses scored "Complete" accurately described the difference between the population patterns for people age 60 and over in the two countries and gave a plausible explanation for the difference.

Country two has a larger portion
of the population aged 60 or over.
This could be due to a more
advanced medical system leading
to a higher life expectancy

Percentage of students giving "Complete" response

	Within achievement-level intervals			
Overall	Below *Basic* (269 and below*)	*Basic* (270–304*)	*Proficient* (305–338*)	*Advanced* (339 and above*)
16	2	15	33	‡

*NAEP geography scale range.

‡Reporting standards not met.

Data source: The National Assessment of Educational Progress (NAEP) 1994 and 2001 Geography Assessments.

For technical information, see the complete report:

Weiss, A.R., Lutkus, A.D., Hildebrant, B.S., and Johnson, M.S. (2002). *The Nation's Report Card: Geography 2001* (NCES 2002–484).

Author affiliations: A.R. Weiss, A.D. Lutkus, B.S. Hildebrant, and M.S. Johnson, Educational Testing Service.

For questions about content, contact Arnold Goldstein (arnold.goldstein@ed.gov).

To obtain the complete report (NCES 2002–484), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

To obtain the Highlights publication from which this article is excerpted (NCES 2002–485), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Vocational Education Offerings in Rural High Schools

Lisa Hudson and Linda Shafer

This article was originally published as an Issue Brief. The sample survey data are from the NCES Fast Response Survey System (FRSS).

A great deal is known about high school vocational coursetaking, including which students take more rather than less vocational education (see Levesque et al. 2000; Tuma 1996). Less is known about vocational education offerings and the types of schools that provide various types of vocational education programs. To help fill this gap, this Issue Brief uses data from the 1999 "Survey on Vocational Programs in Secondary Schools" (see Phelps et al. 2001) to examine systems for delivering vocational education and the offerings provided by public high schools in urban, suburban, and rural areas.[1] Schools in these areas are likely to differ in the nature of their local labor markets, and thus in the demand for vocational education faced by schools. In particular, many rural areas are likely to have labor markets that are less diverse than those in suburban and urban areas. Vocational offerings also might be more limited in rural areas compared to urban and suburban areas in part because rural high schools tend to be smaller than high schools in other areas. In 1998–99, for example, the average student enrollment in rural public high schools was 437, compared to 1,120 for schools in suburban and urban areas. Assuming rural schools do have more limited vocational offerings, a subsequent issue of interest is the likelihood that rural schools offer certain types of programs. This Issue Brief examines these issues.

The 1999 "Survey on Vocational Programs in Secondary Schools"

This survey asked administrators of public high schools to classify their school as "comprehensive" or "vocational" in focus.[2] The survey also included a list of 28 selected occupations that typically require less than a baccalaureate degree. School administrators were asked to identify for which of the 28 selected occupations their school offered a vocational education program (defined as a sequence of courses within an occupational preparation area) in 1998–99. The survey included the most common occupations for which vocational education prepares students at the high school level, but it did not include all possible occupations for which schools may have vocational offerings. However, based on analyses of public high school transcripts, the information derived from this survey describes the vast majority of high school vocational education offerings.[3]

Systems for Delivering Vocational Education

According to the "Survey on Vocational Programs in Secondary Schools," almost 90 percent of U.S. public high schools in 1998–99 were comprehensive high schools rather than vocational schools (table 1). The remaining 11 percent of schools were roughly evenly split between area or regional vocational schools (which typically serve students on a part-time basis) and full-time vocational high schools.

Table 1.—Percentage distribution of public high schools, by type, and percent offering at least one vocational education program for any of the 28 selected occupations, overall and by locale: 1998–99

	Percentage distribution of public high schools			
Locale	Area or regional vocational school	Vocational high school	Comprehensive high school	Percent of schools offering at least one program
Overall /all areas	6.2	4.6	89.2	66.5
Urban areas	5.5	10.3	84.2	72.9
Suburban areas	5.9	4.4	89.7	63.9
Rural areas	6.6	3.1	90.3	66.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Vocational Programs in Secondary Schools," FRSS 72, 1999.

Among comprehensive high schools, only 63 percent offered at least one program for any of the 28 selected occupations (Phelps et al. 2001). Some comprehensive schools that do not offer these programs might offer individual vocational education courses rather than programs. In addition, some may offer students access to vocational education programs at area or regional vocational schools.[4] Thus, student access to vocational education is more widespread than is indicated by schools' program offerings. As evidence of this widespread access,

---

[1] Areas were categorized using U.S. Census Bureau definitions. *Urban* areas are defined as large or midsize central cities. *Suburban* areas are the urban fringes of large and midsize cities, as well as large towns and rural communities located within metropolitan areas. *Rural* areas are small towns and communities outside of metropolitan areas with populations of less than 25,000.

[2] In this survey, comprehensive schools included all high schools that were not vocational in focus. Special or alternative education schools were not separately classified. Vocational schools were self-classified as (1) area or regional vocational schools or (2) vocational high schools.

[3] The missing program areas include transportation, protective services, and some areas within precision production and communications technology. Based on analyses of the 1998 High School Transcript Study (HSTS), these missing programs include less than 10 percent of students' occupational coursetaking.

[4] In 1991, over half of all public school districts offered students access to area or regional vocational schools (Office of Educational Research and Improvement 1994).

91 percent of 1998 public high school graduates earned credits in occupational coursework.[5]

The systems used to deliver vocational education were slightly different in urban areas than in suburban and rural areas (table 1). Urban areas had a higher proportion of *vocational high schools* than did suburban areas and rural areas, possibly because urban areas were more likely to use vocational high schools as magnet schools. Nonetheless, there were no (statistically) detectable differences among urban, suburban, and rural areas in the percentage of high schools that offered at least one of the listed vocational programs.[6] However, the number of programs offered and the specific programs offered did vary across locales, as discussed below.

Occupational Offerings by Locale

An initial analysis comparing the distribution of vocational education offerings in urban, suburban, and rural areas revealed no differences between urban and suburban areas (data not shown). Thus, for this Issue Brief, urban and suburban high schools were combined into a single category (nonrural schools) that was compared to rural high schools. Table 2 shows the percentage of public high schools that offered at least one program for each of the 28 selected occupations, for schools overall and separately for rural schools and nonrural schools.

On average, rural high schools offered at least one program for fewer of the selected occupations than did nonrural high schools—an average of 3.7 occupations in rural schools versus 4.8 in nonrural schools. This difference reflects a lower proportion of rural schools offering programs for most of the listed occupations (16 of the 28), rather than differences in a few offerings. Specifically, rural schools were less likely than nonrural schools to offer programs for four of the five listed technical occupations, all listed service occupations, and three of the four listed mechanical occupations. Rural schools also were less likely than nonrural schools to offer three of the six listed programs for health and life science occupations, including the relatively common nurse/nurse's aide programs, and two of the four programs for business and marketing occupations (sales associate and restaurant/food service manager).

On the other hand, rural schools were as likely as nonrural schools to offer the two most common business and marketing programs (accountant/bookkeeper and administrative assistant/secretary) and were at least as likely as nonrural schools to offer all listed programs in the building trades. Rural schools were *more* likely than nonrural schools to offer vocational education programs for welding and for agriscience. The greater propensity of rural schools to offer vocational programs for these two fields would seem to reflect labor market differences between rural and nonrural areas—specifically, the concentration of agribusiness in rural areas.

Other factors also could contribute to this pattern of offerings. One hypothesis suggested by the findings is that vocational education programs for expanding occupations (e.g., in technical and health fields) are less commonly offered in rural schools. One way to examine this issue is to compare schools' offerings for occupations that are growing at a relatively fast rate. Of the 28 selected occupations, 10 were projected by the Bureau of Labor Statistics to be fast growing (defined as having a projected growth rate of over 20 percent from 1996 to 2006; Bureau of Labor Statistics 1998) (table 3). Among the public high schools that offered at least one program for any of the 28 selected occupations, an average of 25 percent of the programs offered by nonrural schools were programs for these projected fast-growing occupations, compared to 17 percent for rural schools. In other words, the programs offered by nonrural schools were more likely than those offered by rural schools to be programs that prepare students for occupations expected to be fast growing. This difference in offerings does not necessarily mean that rural schools are less responsive to the labor market than are other schools. Instead, this difference in offerings could reflect labor market differences in rural and nonrural areas.

References

Bradby, D., and Hoachlander, G. (1999). *1998 Revision of the Secondary School Taxonomy* (NCES 1999–06). U.S. Department of Education. Washington, DC: National Center for Education Statistics Working Paper.

Bureau of Labor Statistics. (1998). The 1996–2006 Job Outlook in Brief. *Occupational Outlook Quarterly*, Spring 1998: 3–39. Washington, DC: U.S. Department of Labor.

Levesque, K., Lauen, D., Teitelbaum, P., Alt, M., and Librera, S. (2000). *Vocational Education in the United States: Toward the Year 2000* (NCES 2000–029). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

---

[5] U.S. Department of Education, National Center for Education Statistics, 1998 High School Transcript Study (HSTS). Occupational courses include all courses within the "specific labor market preparation" section of the vocational education curriculum in the NCES Secondary School Taxonomy (Bradby and Hoachlander 1999).

[6] These estimates had relatively large standard errors, which may in part explain why the apparent differences between urban areas and suburban and rural areas were not statistically different.

Table 2.—Percent of public high schools offering at least one program for each of the 28 selected occupations, overall and by locale: 1998–99

Program for	All schools	Rural schools	Nonrural schools
Technical occupations			
Drafter or CADD operator	31.8	28.3	35.0
Computer/electronics technician*	14.2	9.7	18.4
Computer graphic designer*	13.3	7.6	18.5
Computer programmer*	11.4	8.3	14.3
Engineering technician*	2.8	1.6	3.9
Service occupations			
Chef/cook*	20.3	16.4	24.0
Childcare worker or teacher's aide*	20.0	15.3	24.5
Cosmetologist*	9.2	5.0	13.2
Paralegal/legal assistant*	1.9	1.0	2.6
Mechanical occupations			
Auto body repairer	10.6	8.7	12.4
Automotive mechanic/technician*	27.1	22.5	31.4
Machinist*	9.9	7.5	12.1
AC/heating/refrigeration repair technician*	4.2	1.8	6.5
Health/life science occupations			
Agriscience technician*	13.6	16.8	10.5
Emergency medical technician	6.3	5.0	7.5
Veterinary assistant	6.1	5.4	6.7
Nurse or nurse's aide*	19.2	15.3	22.9
Medical/dental assistant*	9.1	5.1	12.9
Medical/life science lab technician*	4.3	2.4	6.0
Business/marketing occupations			
Accountant/bookkeeper	46.3	46.7	45.9
Administrative assistant/secretary	35.8	33.0	38.4
Sales associate*	17.0	10.7	22.8
Restaurant/food service manager*	14.0	9.6	18.0
Building trades			
Welder*	23.3	28.2	18.7
Carpenter	28.0	29.6	26.5
Electrician	12.9	12.6	13.2
Bricklayer or mason	7.7	6.5	8.8
Plumber	6.8	7.2	6.4

*The percentages of rural and nonrural schools with programs for these occupations were statistically different. All other differences between rural and nonrural schools were not statistically different.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Vocational Programs in Secondary Schools," FRSS 72, 1999.

Table 3.—List of fast-growing and other occupations, by the likelihood that rural public high schools offered at least one vocational education program for that occupation: 1998–99

	Fast-growing occupations	Other occupations
Rural schools less likely than nonrural schools to offer at least one vocational program for:	Computer/electronics technician Computer graphic designer Computer programmer Childcare worker or teacher's aide Paralegal/legal assistant Nurse or nurse's aide Medical/dental assistant Restaurant/food service manager	Engineering technician Chef/cook Cosmetologist Automotive mechanic/technician Machinist AC/heating/refrig. repair technician Medical/life science lab technician Sales associate
Rural schools and nonrural schools equally likely to offer at least one vocational program for:	Emergency medical technician Veterinary assistant	Drafter or CADD operator Auto body repairer Accountant/bookkeeper Administrative assistant/secretary Carpenter Electrician Bricklayer or mason Plumber
Rural schools more likely than nonrural schools to offer at least one vocational program for:		Agriscience technician Welder

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Vocational Programs in Secondary Schools," FRSS 72, 1999; and U.S. Bureau of Labor Statistics, *Occupational Outlook Quarterly*, Spring 1998, pp. 3–39.

Office of Educational Research and Improvement. (1994). *National Assessment of Vocational Education: Interim Report to Congress.* U.S. Department of Education. Washington, DC: Author.

Phelps, R., Parsad, B., Farris, E., and Hudson, L. (2001). *Features of Occupational Programs at the Secondary and Postsecondary Education Levels* (NCES 2001–018). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Tuma, J. (1996). *Trends in Participation in Secondary Vocational Education: 1982–1992* (NCES 96–004). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Data source: The NCES Fast Response Survey System, "Survey on Vocational Programs in Secondary Schools," FRSS 72, 1999.

For technical information, see

Phelps, R., Parsad, B., Farris, E., and Hudson, L. (2001). *Features of Occupational Programs at the Secondary and Postsecondary Education Levels* (NCES 2001–018).

Author affiliations: Lisa Hudson, NCES; Linda Shafer, Education Statistics Services Institute (ESSI).

For questions about content, contact Lisa Hudson (lisa.hudson@ed.gov).

To obtain this Issue Brief (NCES 2002–120), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Public Alternative Schools and Programs for Students at Risk of Education Failure: 2000–01

Brian Kleiner, Rebecca Porch, and Elizabeth Farris

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES Fast Response Survey System (FRSS).

Background

Concern among the public, educators, and policymakers about violence, weapons, and drugs on elementary and secondary school campuses, balanced with concern about sending disruptive and potentially dangerous students "out on the streets," has spawned an increased interest in alternative schools and programs (U.S. Department of Education 1996). Many students who, for one reason or another, are not succeeding in regular public schools are being sent to alternative placements. In general, students are referred to alternative schools and programs if they are at risk of educational failure, as indicated by poor grades, truancy, disruptive behavior, suspension, pregnancy, or similar factors associated with early withdrawal from school (Paglin and Fager 1997).

The 2001 "District Survey of Alternative Schools and Programs," conducted by the National Center for Education Statistics (NCES) through its Fast Response Survey System (FRSS), is the first national study of public alternative schools and programs for students at risk of educational failure to provide data on topics related to the availability of public alternative schools and programs, enrollment, staffing, and services for these students. The results presented in this report are based on questionnaire data from a nationally representative sample of 1,534 public school districts. Although there is no single commonly accepted definition of what constitutes alternative schools and programs (Lange and Sletten 2002), this survey included only public alternative schools and programs that were geared toward students at risk of educational failure, that were administered by regular districts,[1] and where students spent at least 50 percent of their instructional time.

Key Findings

Availability of and enrollment in public alternative schools and programs for at-risk students

Few national-level measures are available with respect to features of availability of and enrollment in public alternative schools and programs for students at risk of educational failure. The FRSS "District Survey of Alternative Schools and Programs" asked districts for information regarding overall availability and locations of alternative schools and programs; grades at which instruction was offered; and a variety of questions related to enrollment, including overall numbers of students enrolled in alternative schools and programs as well as the existence of capacity limitations and how districts treat such problems. Results include the following:

- Overall, 39 percent of public school districts administered at least one alternative school or program for at-risk students during the 2000–01 school year (table A).[2]
- Urban districts, large districts (those with 10,000 or more students), districts in the Southeast, districts with high minority student enrollments, and districts with high poverty concentrations were more likely than other districts to have alternative schools and programs for at-risk students during the 2000–01 school year (table A).
- Overall, there were 10,900 public alternative schools and programs for at-risk students in the nation during the 2000–01 school year.
- Fifty-nine percent (6,400) of all public alternative schools and programs for at-risk students were housed in a separate facility (i.e., not within a regular school) during the 2000–01 school year. Results also indicate that districts administered few alternative schools and programs that were in juvenile detention centers (4 percent of all public alternative schools and programs), that were in community centers (3 percent), or that were charter schools (1 percent).
- Overall, districts with one or more alternative schools or programs for at-risk students were most likely to have just one such school or program during the 2000–01 school year (65 percent). Large districts were more likely than moderate-size districts, which

---

[1] A regular district is defined in the 1998–99 Common Core of Data (CCD) as one of two types: 1) a local school district that is not a component of a supervisory union, or 2) a local school district component of a supervisory union sharing a superintendent and administrative services with other local school districts.

[2] If elementary districts (i.e., districts with grades no higher than grade 8) are excluded from consideration, 48 percent of (unified and secondary) districts had at least one alternative school or program during the 2000–01 school year.

Table A.—Percent of districts with alternative schools and programs for at-risk students, by district characteristics: School year 2000–01

Characteristic	Percent
Total	39
Metropolitan status	
Urban	66
Suburban	41
Rural	35
District enrollment size	
Less than 2,500	26
2,500 to 9,999	69
10,000 or more	95
Region	
Northeast	31
Southeast	80
Central	28
West	44
Minority enrollment[1]	
5 percent or less	26
6 to 20 percent	43
21 to 50 percent	51
More than 50 percent	62
Poverty concentration[2]	
Less than 10 percent	31
10 to 20 percent	43
More than 20 percent	45

[1] Estimates are based on the 1,515 districts for which data on minority enrollment were available.

[2] Estimates are based on the 1,503 districts for which data on poverty concentration were available. Poverty concentration is based on Census Bureau data on the percentage of children ages 5–17 in families below the poverty level within districts in 1996–97.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "District Survey of Alternative Schools and Programs," FRSS 76, 2001. (Originally published as table 1 on p. 6 of the complete report from which this article is excerpted.)

in turn were more likely than small districts, to have three or more alternative schools or programs (56 percent vs. 16 percent vs. 7 percent, respectively).

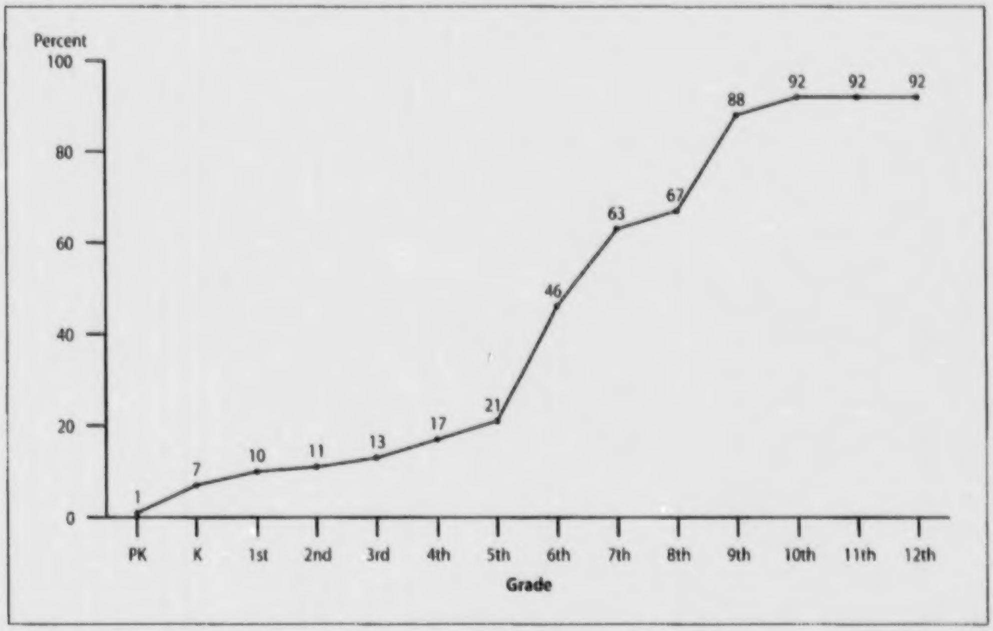
- Among those districts offering alternative education for at-risk students during the 2000–01 school year, alternative schools and programs were offered at the secondary level (grades 9 through 12) by 88 to 92 percent of districts, at the middle school level (grades 6 through 8) by 46 to 67 percent of districts, and at the elementary school level (grades 1 through 5) by 10 to 21 percent of districts (figure A).
- As of October 1, 2000, 612,900 students, or 1.3 percent of all public school students, were enrolled in public alternative schools or programs for at-risk students.[3] Forty-three percent of districts with alternative schools and programs for at-risk students had less than 1 percent of their student population enrolled in such schools and programs.
- Overall, 12 percent of all students in alternative schools and programs for at-risk students were special education students with Individualized Education Programs (IEPs) (not shown in tables).[4]

---

[3] Percentages are based on total district enrollment figures according to the 2000–01 NCES CCD. In 2000–01, there were about 47 million students in the nation's public schools.

[4] An IEP is a special educational program that is tailored to each student's needs according to his/her learning disability(s).

Figure A.—Percent of districts with alternative schools and programs for at-risk students that offered alternative schools and programs for prekindergarten through grade 12: School year 2000–01



NOTE: Percentages are based on the 39 percent of districts that reported administrating at least one alternative school or program during the 2000–01 school year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "District Survey of Alternative Schools and Programs," FRSS 76, 2001. (Originally published as figure 1 on p. 9 of the complete report from which this article is excerpted.)

This percentage is not significantly different from the overall percentage of special education students with IEPs enrolled in all public schools during the 2000–01 school year (13 percent) (not shown in tables).[5] While 29 percent of districts with alternative schools and programs had less than 3 percent of alternative education students who were special education students with IEPs, roughly as many districts (34 percent) had 20 percent or more.

- About one-third (33 percent) of districts with alternative schools and programs for at-risk students had at least one such school or program that did not have the capacity to enroll new students during the 1999–2000 school year. This was more likely to be the case for large and moderate-size districts than for small ones (43 and 39 percent vs. 25 percent).
- Fifty-four percent of districts with alternative schools and programs for at-risk students reported that within the last 3 years there were cases where demand for enrollment exceeded capacity (not shown in tables). These districts reported employing a variety of procedures in such cases. Putting students on a waiting list was the most common procedure of districts where demand exceeded capacity (83 percent).

Alternative schools and programs: entrance and exit criteria

Student enrollment in the nation's public alternative schools and programs is highly fluid. Students are removed from and returned to regular schools on an individual and daily basis, for a variety of reasons. Many public alternative schools and programs aim to return at-risk students to regular schools as soon as students are prepared to do so. Some students do return to regular schools less "at risk," but many are sent back to or simply remain in (by choice or decree) an alternative school or program for the duration of their education (Quinn and Rutherford 1998). Results of the FRSS "District Survey of Alternative Schools and Programs" include the following findings on criteria for transferring students into and out of alternative schools and programs during the 2000–01 school year:

---

[5] The latter percentage is derived from the 2000–01 NCES CCD.

- Roughly half of all districts with alternative schools and programs reported that each of the following was a sufficient reason for transferring at-risk students from a regular school: possession, distribution, or use of alcohol or drugs (52 percent); physical attacks or fights (52 percent); chronic truancy (51 percent); possession or use of a weapon other than a firearm (50 percent); continual academic failure (50 percent); disruptive verbal behavior (45 percent); and possession or use of a firearm (44 percent) (table B).[6] Teen pregnancy/parenthood and mental health needs were least likely to be sole reasons for transfer (28 and 22 percent).[7]
- With respect to the manner in which at-risk special education students with IEPs arrive at alternative schools and programs (e.g., through the support of a director of special education or the recommendation of regular school staff), an IEP team decision was the means that districts most commonly employed to a "large extent" in these students' placement (66 percent).
- While 74 percent of districts with alternative schools and programs for at-risk students reported a policy that allowed all alternative education students to return to a regular school, 25 percent of districts allowed some, but not all, students to return, and 1 percent allowed none to return.
- The reasons that districts were most likely to rate as "very important" in determining whether a student was able to return to a regular school were improved attitude or behavior (82 percent) and student motivation to return (81 percent) (table C).

Staffing, curriculum and services, and collaboration

Whether students at risk of educational failure are able to transfer back to regular schools or successfully graduate from alternative schools and programs may depend in part on the quality of the education and services they receive. Various factors have been identified as beneficial to at-risk students in alternative education environments, including dedicated and well-trained staff, effective curriculum, and a variety of support services provided in collaboration with an array of agencies (Quinn and Rutherford 1998). Results of the FRSS "District Survey of Alternative Schools and Programs" include the following information on such factors:

- Eighty-six percent of districts with alternative schools and programs for at-risk students hired teachers specifically to teach in such schools and programs. A smaller percentage of districts transferred teachers by choice from a regular school (49 percent), and an even smaller percentage assigned teachers involuntarily to positions in alternative schools and programs (10 percent).
- Overall, many districts with alternative schools and programs for at-risk students had policies requiring a wide variety of services and practices for alternative education students.[8] Over three-quarters of the districts had curricula leading toward a regular high school diploma (91 percent), academic counseling (87 percent), policies requiring a smaller class size than in regular schools (85 percent), remedial instruction (84 percent), opportunity for self-paced instruction (83 percent), crisis/behavioral intervention (79 percent), and career counseling (79 percent). Least commonly required were an extended school day or school year (29 percent), security personnel on site (26 percent), and evening or weekend classes (25 percent). On average, districts required 9.5 of the 16 services asked about in the survey (not shown in tables).
- The type of collaboration most widely reported by districts with alternative schools and programs for at-risk students was with the juvenile justice system (84 percent). Seventy-five percent of districts collaborated with community mental health agencies, 70 percent collaborated with police or sheriff's departments, and 69 percent collaborated with child protective services. Collaboration with parks and recreation departments was least commonly cited by districts (23 percent).

---

[6] The counterintuitive result that a smaller percentage of districts transferred students solely for possession of a firearm compared with other reasons may be due to the fact that districts may have policies requiring expulsion in case of firearm possession, and transfer to an alternative school or program is not an option.

[7] The finding for teen pregnancy/parenthood does not include the 27 elementary districts that were asked this question.

[8] Since some of the services were not relevant at the elementary level (e.g., career counseling, preparation for the GED exam, etc.), to ensure comparability across services, the 27 elementary districts that were asked questions about services were excluded from the findings on services.

Table B.—Percent of districts with alternative schools and programs for at-risk students that reported that students could be transferred to an alternative school or program solely on the basis of various reasons, by district characteristics: School year 2000–01

Characteristic	Possession, distribution, or use of alcohol or drugs	Physical attacks or fights	Chronic truancy	Possession or use of a weapon (other than a firearm)	Continual academic failure
Total	52	52	51	50	50
Metropolitan status					
Urban	60	65	54	61	52
Suburban	54	48	47	52	46
Rural	49	52	54	46	54
District enrollment size					
Less than 2,500	42	46	53	41	52
2,500 to 9,999	56	51	47	54	48
10,000 or more	76	72	53	72	51
Region					
Northeast	41	40	40	42	44
Southeast	70	71	50	65	43
Central	39	42	56	35	60
West	56	52	53	55	50
Minority enrollment[1]					
5 percent or less	45	45	52	44	58
6 to 20 percent	46	46	47	43	45
21 to 50 percent	59	56	51	57	49
More than 50 percent	65	63	54	62	46
Poverty concentration[2]					
Less than 10 percent	44	40	46	41	49
10 to 20 percent	47	49	51	45	51
More than 20 percent	65	62	54	62	51

Characteristic	Disruptive verbal behavior	Possession or use of a firearm	Arrest or involvement with juvenile justice system	Teen pregnancy/ parenthood[3]	Mental health needs
Total	45	44	38	28	22
Metropolitan status					
Urban	48	49	47	38	27
Suburban	41	45	36	24	17
Rural	48	42	38	30	26
District enrollment size					
Less than 2,500	45	37	35	31	23
2,500 to 9,999	43	46	38	23	21
10,000 or more	54	61	50	34	21
Region					
Northeast	33	38	24	10	16
Southeast	62	54	46	15	20
Central	39	31	33	40	28
West	45	50	44	35	22
Minority enrollment[1]					
5 percent or less	41	40	31	30	26
6 to 20 percent	41	39	36	28	22
21 to 50 percent	47	50	39	26	19
More than 50 percent	56	49	49	26	20
Poverty concentration[2]					
Less than 10 percent	36	34	28	27	18
10 to 20 percent	43	42	38	31	27
More than 20 percent	54	52	46	25	20

[1] Estimates are based on the 840 districts with alternative schools and programs for which data on minority enrollment were available.

[2] Estimates are based on the 843 districts with alternative schools and programs for which data on poverty concentration were available. Poverty concentration is based on Census Bureau data on the percentage of children ages 5–17 in families below the poverty level within districts in 1996–97.

[3] Does not include results for the 27 elementary districts that were asked about teen pregnancy/parenthood.

NOTE: Percentages are based on the 39 percent of districts that reported administrating at least one alternative school or program during the 2000–01 school year. Response categories were not mutually exclusive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "District Survey of Alternative Schools and Programs," FRSS 76, 2001. (Originally published as table 8 on pp. 18–19 of the complete report from which this article is excerpted.)

Table C.—Percent of districts with alternative schools and programs for at-risk students that cited various reasons as "very important" in determining whether an enrolled student can return to a regular school, by district characteristics: Academic year 2000–01

Characteristic	Improved attitude or behavior	Student motivation to return	Approval of alternative school/ program staff	Improved grades	Approval of the regular school administrator or counselor	Student readiness by standardized assessment	Availability of space in regular school
Total	82	81	67	52	40	12	3
Metropolitan status							
Urban	85	83	61	54	29	13	3
Suburban	81	78	62	54	37	8	4
Rural	82	84	73	50	44	15	3
District enrollment size							
Less than 2,500	80	85	69	54	48	15	3
2,500 to 9,999	84	78	67	50	35	8	3
10,000 or more	82	75	60	53	25	12	3
Region							
Northeast	85	82	57	49	38	6	3
Southeast	89	73	78	47	36	15	1
Central	83	88	69	57	45	9	3
West	75	81	63	54	40	15	5
Minority enrollment[1]							
5 percent or less	83	87	67	52	44	15	4
6 to 20 percent	80	84	67	48	43	8	3
21 to 50 percent	82	73	66	48	32	14	4
More than 50 percent	82	77	68	64	38	10	3
Poverty concentration[2]							
Less than 10 percent	83	78	62	50	31	9	6
10 to 20 percent	80	84	65	51	42	9	2
More than 20 percent	83	80	73	56	43	18	3

[1] Among districts with alternative schools and programs that allowed all or some students to return to a regular school, estimates are based on the 834 districts for which data on minority enrollment were available.

[2] Among districts with alternative schools and programs that allowed all or some students to return to a regular school, estimates are based on the 837 districts for which data on poverty concentration were available. Poverty concentration is based on Census Bureau data on the percentage of children ages 5–17 in families below the poverty level within districts in 1996–97.

NOTE: Percentages are based on the 39 percent of districts that reported administrating at least one alternative school or program during the 2000–01 school year and allowed all or some students to return to a regular school. Response categories were not mutually exclusive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "District Survey of Alternative Schools and Programs," FRSS 76, 2001. (Originally published as table 11 on p. 23 of the complete report from which this article is excerpted.)

References

Lange, C.M., and Sletten, S.J. (2002). *Alternative Education: A Brief History and Research Synthesis*. Alexandria, VA: National Association of State Directors of Special Education.

Paglin, C., and Fager, J. (1997). *Alternative Schools: Approaches for Students at Risk* (By Request series). Portland, OR: Northwest Regional Educational Laboratory. Available: http://www.nwrel.org/request/sept97/

Quinn, M.M., and Rutherford, R.B. (1998). *Alternative Programs for Students With Social, Emotional, or Behavioral Problems*. Reston, VA: Council for Children With Behavioral Disorders.

U.S. Department of Education. (1996). Alternative Education Programs for Expelled Students. In U.S. Department of Education *Safe and Drug-Free Schools: An Action Guide*. Available: http://www.ed.gov/offices/OESE/SDFS/actguid/altersc.html

Data source: The NCES Fast Response Survey System, "District Survey of Alternative Schools and Programs," FRSS 76, 2001.

For technical information, see the complete report:

Kleiner, B., Porch, R., and Farris, E. (2002). *Public Alternative Schools and Programs for Students at Risk of Education Failure: 2000–01* (NCES 2002–004).

Author affiliations: Brian Kleiner, Rebecca Porch, and Elizabeth Farris, Westat, Inc.

For questions about content, contact Bernard Greene (bernard.greene@ed.gov).

To obtain the complete report (NCES 2002–004), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Overview of Public Elementary and Secondary Schools and Districts: School Year 2000–01

Lee M. Hoffman

This article was originally published as a Statistical Analysis Report. The universe data are primarily from the following two components of the NCES Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey." Technical notes, definitions, and supplemental tables from the original report have been omitted.

This report summarizes information about public elementary and secondary schools and local education agencies in the United States during the 2000–01 school year. The information is provided by state education agencies through the Common Core of Data (CCD) survey system.

Types of Public Schools and Agencies

States reported 93,273 public elementary/secondary schools in the 2000–01 school year (table A).[1] This was an increase of almost 7.1 percent over the more than 87,125 schools reported 5 years earlier, in the fall of 1995.[2] Most of these were regular schools, those that offer a comprehensive curriculum and may provide other programs and services as well. A smaller number of schools focused primarily on special education, vocational/technical education, or alternative programs. Students in these specialized schools were often enrolled in a regular school as well and were reported as part of the membership of that regular school (table A).

Among the schools that reported students in membership, 93 percent were regular schools (derived from table 1). The second largest category with student membership was that of alternative education schools (4 percent), followed by special education schools (almost 2 percent). Note that two-thirds of the vocational schools identified in table A, as well as smaller proportions of other types of schools, do not appear in table 1 because no students were reported in membership for these schools.

Most *local education agencies* are those that are typically thought of as "school districts." Operated by a local school board, they provide instructional services for students and comprised 88 percent of local agencies in 2000–01 (table 2). A smaller proportion, 8 percent, were supervisory unions or regional education service agencies whose major responsibility is to offer administrative, special program, testing, or other services to school districts. Finally, around 5 percent of the reported agencies were operated directly by a state or federal government or were other than any of the preceding categories. The number of regular school districts increased by less than 1 percent from the 14,766 reported in 1995 to a total of 14,859 in 2000–01.

The governance of *charter schools* varies from state to state. In some cases, they are not considered under the administration of the regular public school district within whose boundaries they operate and are reported on the CCD with a separate education agency associated with each charter school. When this occurs, these agencies are reported under the category of "other education agency." For example, in the District of Columbia the establishment of 33 charter schools explains why the District is shown with 34 total agencies in table 2.

Student Membership

In the 2000–01 school year, 90,640 public schools provided instruction to 47.2 million students in the United States

Table A.—Public elementary and secondary schools in the United States: 2000–01

	Total	Regular	Special	Vocational	Alternative
Total schools in United States	93,273	85,422	2,008	1,025	4,818
Reporting students	90,640	84,596	1,654	345	4,045
Not reporting students	2,633	826	354	680	773

NOTE: Totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

---

[1] CCD respondents include the 50 states, the District of Columbia, the Department of Defense Dependents Schools, the Bureau of Indian Affairs, and five outlying areas (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, and the U.S. Virgin Islands). Totals in this report are limited to the 50 states and the District of Columbia, referred to collectively as "the states."

[2] Comparisons with 1995 are based on tables 87 and 88 in the *Digest of Education Statistics: 2000* (Snyder and Hoffman 2001).

(table 1), an increase of less than 1 percent from the 46.9 million students in 1999 (Hoffman 2001, table 1). Five states (California, Florida, Illinois, New York, and Texas) each enrolled more than 2 million students in their public schools. At the other end of the size distribution, the District of Columbia and Wyoming reported fewer than 100,000 students.

Most of the 2000–01 students, 98 percent, were reported enrolled in regular schools. One percent were in alternative schools. Special education or vocational schools each accounted for less than one-half of 1 percent of students. Kansas, Mississippi, New Hampshire, North Dakota, and Oklahoma reported operating only regular schools.

Instructional Level

Schools come in all combinations of grades. To allow comparisons across states, instructional level is determined in this report by the lowest and highest grade in a school. Among the 90,640 schools with membership during the 2000–01 school year, 58 percent spanned the primary grades, beginning with prekindergarten or kindergarten and going no higher than grade 8 (table 3). Middle schools, those with grade spans ranging from as low as grade 4 to as high as grade 9, made up 17 percent of schools with students. High schools (low grade of 7 or higher, high grade of 12) accounted for an additional 19 percent of schools. Some 6 percent of schools had a grade configuration that did not fit into any of these three categories.

A total of 14,514 regular school districts reported students in membership for 2000–01 (table 4). As with the instructional level of schools, grade span categories were assigned by the lowest and highest grades offered. Approximately 74 percent of school districts included the range of grades from prekindergarten or kindergarten to grade 9 or higher, and these districts accounted for 92 percent of all public school students. (In fact, only in Illinois, Montana, and Vermont did as many as one-third of the students attend school districts with other grade spans.) A little more than 5 percent of students were in districts with no grade higher than 8, and about 2 percent were in secondary districts with no grade lower than 7. Less than 1 percent of students were enrolled in districts with some other range of grades.

School and School District Size

Primary schools tended to be smaller than middle and high schools (table 5). The average number of students in a primary school was 443 in 2000–01. Middle schools served, on the average, 605 students each while the average-size high school had 751 students. There was considerable range in school size across the states. High schools ranged from an average of fewer than 300 students in Montana, North Dakota, and South Dakota to more than 1,400 students in Florida and Hawaii.

Student/teacher ratios were higher in primary schools, which had a median number of 16.0 students for each teacher, than in high schools, with a median number of 14.8 students per teacher (table 6). (The median is the point at which half the schools had larger student/teacher ratios and half had smaller. Note also that student/teacher ratio is not the same as average class size, since not all teachers are assigned to a classroom.) The median number of primary students for each teacher ranged from a low of fewer than 13.0 in Nebraska, North Dakota, South Dakota, Vermont, and Wyoming to a high of 21.0 or more in Kentucky and Utah.

Twenty-four school districts enrolled 100,000 or more students, while 1,794 districts served fewer than 150 students (table 7). While few in number, the larger districts included a considerable portion of the students in America's schools. Although less than 2 percent of school districts reported 25,000 or more students, almost one-third (32 percent) of students attended school in these districts. At the other end of the size range, more than one-third of school districts had fewer than 600 students but these districts accounted for only 3 percent of public school enrollment.

Other School Characteristics

The majority of schools, 57 percent, were in large or midsize cities or their accompanying urban fringe areas (table 8). These schools accounted for more than two-thirds (69 percent) of all public school students. About 1 of every 6 students was in a large city school in 2000–01; a smaller proportion, about 1 in 10, attended a rural school that was not within the fringes of an urban area.

Table 9 shows the number of Title I eligible schools by state, and the number of these schools that have schoolwide Title I programs. Seven states did not indicate which of their schools were eligible for Title I services. Among those states that could provide this information, the District of Columbia, Mississippi, Montana, North Dakota, and South Dakota reported that more than 7 out of 10 public school students were in Title I eligible schools. Within the states identifying schools with schoolwide Title I programs, more than half of the students were enrolled in these schools in the District of Columbia, Mississippi, and Texas.

States were asked to identify magnet schools. Thirty-nine states (including the District of Columbia) were able to report magnet school information (table 9). Of these, 21 states had at least one magnet school, 2 states reported no magnet schools, and an additional 16 reported that magnet schools were not administered in their state. California and Illinois reported the greatest number of magnet schools, 447 and 372, respectively. Illinois served 13 percent of its students in magnet schools; in California, the figure was 9 percent.

Thirty-seven states (including the District of Columbia) recognized charter schools in 2000–01. Of this group, 35 reported that one or more charter schools were in operation (table 9). The number of schools ranged from a single charter school in Maine and Mississippi to more than 300 in Arizona and California. In four states, Arizona, Colorado, Delaware, and Michigan, charter schools enrolled more than 2 percent of all public school students.

Student Program Participation and Selected Characteristics

Nationally, 13 percent of public school students had special education Individualized Education Programs (IEPs) in 2000–01 (table 10). Among those states reporting students with IEPs, the proportion ranged from less than 10 percent in Colorado to more than 19 percent in New Mexico and Rhode Island.

Some 39 states (including the District of Columbia) reported the number of students who were English language learners and receiving services for limited English proficiency (LEP). In California, there were 1.5 million LEP service recipients (one-fourth of all students) in 2000–01, while Texas reported more than half a million students (14 percent) receiving LEP services.

Thirty-three states (including the District of Columbia) provided information about the number of migrant students enrolled during the 1999–2000 school year or the following summer. Because a single migrant student may enroll in several schools during the year, this is a duplicated count of students. Therefore, table 10 cannot estimate the proportion of students who were migrants. The greatest number of migrant students served, almost 294,000 when regular school year and summer program participants were combined, was reported by California.

All but five states reported the number of students eligible for free or reduced-price meals. More than half of all students were eligible for this program in the District of Columbia, Louisiana, Mississippi, New Mexico, and West Virginia. The largest numbers of students eligible for free or reduced-price meals were in California and Texas, with 2.8 and 1.8 million eligible students, respectively.

Table 11 shows the distribution of minority students (all groups except White, non-Hispanic) across cities, urban fringe areas, and small towns or rural communities in 2000–01. A majority, 62 percent, of students in large or midsize city schools were minority students, while only 20 percent of students in small town and rural schools were. Three-fourths or more of students were minority group members in the large or midsize city schools of the District of Columbia, Georgia, Hawaii, Illinois, Maryland, New Jersey, and New York. Small town and rural schools tended to have smaller proportions of minority students, but this was not the case for all states. In the small town and rural schools of Arizona, Hawaii, Mississippi, and New Mexico, half or more of the students were minority group members. (The District of Columbia is not included in this list because it operates a single school outside the District's boundaries.)

References

Hoffman, L.M. (2001). *Overview of Public Elementary Schools and Districts: School Year 1999–2000* (NCES 2001–339). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Snyder, T.D., and Hoffman, C.M. (2001). *Digest of Education Statistics: 2000* (NCES 2001–034). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Data sources: The following components of the NCES Common Core of Data (CCD): "Public Elementary/Secondary School Universe Survey," 2000–01; "Local Education Agency Universe Survey," 2000–01; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01.

For technical information, see the complete report:

Hoffman, L.M. (2002). *Overview of Public Elementary and Secondary Schools and Districts: School Year 2000–01* (NCES 2002–356).

Author affiliation: L.M. Hoffman, NCES.

For questions about content, contact Lee Hoffman (lee.hoffman@ed.gov).

To obtain the complete report (NCES 2002–356), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table 1.—Number of public elementary and secondary schools with membership and percentage of students in membership, by type of school and by state: School year 2000–01

State	Number of schools having membership	Total students	Type of school: Regular		Special education		Vocational education		Alternative education	
			Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
United States	90,640	47,222,778	84,596	98.2	1,654	0.4	345	0.4	4,045	1.0
Alabama	1,380	740,091	1,337	99.7	16	0.1	2	(#)	25	0.2
Alaska	502	133,356	469	97.8	2	0.2	1	(#)	30	2.0
Arizona	1,633	877,696	1,556	98.0	10	(#)	4	0.5	63	1.5
Arkansas	1,130	449,959	1,125	99.9	0	0.0	0	0.0	5	0.1
California	8,757	6,142,348	7,544	96.6	124	0.5	0	0.0	1,089	2.9
Colorado	1,590	724,508	1,503	98.7	10	0.1	2	(#)	75	1.2
Connecticut	1,073	562,179	987	96.4	24	0.6	17	1.9	45	1.1
Delaware	191	114,676	164	92.8	14	1.1	5	4.7	8	1.3
District of Columbia	165	68,925	150	94.7	10	4.0	0	0.0	5	1.3
Florida	3,231	2,434,821	2,931	98.5	126	0.6	32	0.1	142	0.7
Georgia	1,946	1,444,937	1,917	99.5	1	(#)	0	0.0	28	0.4
Hawaii	261	184,360	257	99.9	3	(#)	0	0.0	1	0.1
Idaho	653	245,117	590	98.4	9	0.1	0	0.0	54	1.5
Illinois	4,282	2,048,792	3,910	98.0	250	1.2	0	0.0	122	0.9
Indiana	1,882	989,225	1,830	99.6	8	0.1	1	(#)	43	0.3
Iowa	1,529	495,080	1,482	98.8	9	0.2	0	0.0	38	1.0
Kansas	1,426	470,610	1,426	100.0	0	0.0	0	0.0	0	0.0
Kentucky	1,376	665,850	1,300	99.5	9	0.1	1	(#)	66	0.4
Louisiana	1,508	743,089	1,384	98.0	28	0.2	4	0.1	92	1.6
Maine	686	207,037	684	100.0	2	(#)	0	0.0	0	0.0
Maryland	1,342	852,920	1,241	97.5	50	0.9	12	1.1	39	0.6
Massachusetts	1,898	975,150	1,817	95.9	1	(#)	45	3.5	35	0.6
Michigan	3,743	1,743,337	3,589	99.0	93	0.6	6	(#)	55	0.3
Minnesota	2,105	854,340	1,608	96.9	191	1.2	1	(#)	305	1.9
Mississippi	884	497,871	884	100.0	0	0.0	0	0.0	0	0.0
Missouri	2,266	912,744	2,146	98.7	54	0.7	5	0.3	61	0.3
Montana	878	154,875	872	99.9	2	(#)	0	0.0	4	0.1
Nebraska	1,296	286,199	1,240	99.4	56	0.6	0	0.0	0	0.0
Nevada	500	340,706	454	98.4	13	0.3	1	0.5	32	0.8
New Hampshire	524	208,461	524	100.0	0	0.0	0	0.0	0	0.0
New Jersey	2,407	1,307,828	2,249	96.7	86	0.7	50	1.5	22	1.1
New Mexico	763	320,306	707	97.8	16	0.6	0	0.0	40	1.7
New York	4,292	2,882,188	4,157	97.6	26	0.1	25	1.1	84	1.1
North Carolina	2,192	1,293,638	2,109	99.3	24	0.3	2	(#)	57	0.4
North Dakota	539	109,201	539	100.0	0	0.0	0	0.0	0	0.0
Ohio	3,827	1,835,049	3,696	96.7	27	0.1	72	3.0	32	0.2
Oklahoma	1,811	623,110	1,811	100.0	0	0.0	0	0.0	0	0.0
Oregon	1,263	546,231	1,180	98.5	12	0.1	0	0.0	71	1.4
Pennsylvania	3,183	1,814,311	3,143	98.3	12	1.0	15	0.6	13	0.1
Rhode Island	320	157,347	306	98.2	4	0.4	4	0.7	6	0.7
South Carolina	1,067	677,411	1,044	99.6	8	0.1	0	0.0	15	0.3
South Dakota	756	128,603	732	98.9	3	0.1	0	0.0	21	1.0
Tennessee	1,575	909,388	1,547	99.6	12	0.1	4	0.2	12	0.1
Texas	7,519	4,059,619	6,656	98.8	140	0.1	19	(#)	704	1.1
Utah	793	481,687	716	98.1	21	0.4	0	0.0	56	1.5
Vermont	353	102,049	315	98.8	36	1.2	0	0.0	2	(#)
Virginia	1,841	1,144,915	1,777	99.2	18	0.1	0	0.0	46	0.6
Washington	2,141	1,004,770	1,819	96.6	74	0.3	11	0.1	237	2.9
West Virginia	794	286,367	765	99.6	7	0.1	3	(#)	19	0.3
Wisconsin	2,180	879,476	2,041	98.3	12	0.1	1	(#)	126	1.5
Wyoming	387	89,940	366	97.7	1	(#)	0	0.0	20	2.2

See footnotes on second page of this table.

Table 1.—Number of public elementary and secondary schools with membership and percentage of students in membership, by type of school and by state: School year 2000–01—Continued

			Type of school							
			Regular		Special education		Vocational education		Alternative education	
State	Number of schools having membership	Total students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs										
DoDDS: DoDs Overseas	156	73,581	156	100.0	0	0.0	0	0.0	0	0.0
DDESS: DoDs Domestic	71	34,174	71	100.0	0	0.0	0	0.0	0	0.0
Bureau of Indian Affairs	177	46,938	177	100.0	0	0.0	0	0.0	0	0.0
American Samoa	31	15,702	29	97.5	1	0.3	1	2.2	0	0.0
Guam	38	32,473	38	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	29	10,004	29	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1,535	612,725	1,474	96.1	29	1.7	14	1.0	18	1.2
Virgin Islands	35	19,459	32	92.6	0	0.0	1	6.7	2	0.7

#Rounds to zero.

NOTE: Table excludes 2,654 schools (21 of these in outlying areas) for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Although type of school is a mutually exclusive category, many regular schools include special, vocational, or alternative education programs. Detail may not sum to totals because of rounding. Total student membership is reported from the "State Nonfiscal Survey of Public Elementary/Secondary Education."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01.

Table 2.—Number and percentage of public elementary and secondary education agencies, by type of agency and by state: School year 2000–01

State	Total agencies	Regular school districts[1]		Regional education service agencies & supervisory union administrative centers		State-operated agencies		Federally operated and other agencies[2]	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	16,935	14,859	87.7	1,282	7.6	124	0.7	670	4.0
Alabama	131	128	97.7	0	0.0	3	2.3	0	0.0
Alaska	55	53	96.4	0	0.0	2	3.6	0	0.0
Arizona	467	410	87.8	6	1.3	2	0.4	49	10.5
Arkansas	328	310	94.5	15	4.6	3	0.9	0	0.0
California	1,055	985	93.4	58	5.5	12	1.1	0	0.0
Colorado	198	176	88.9	22	11.1	0	0.0	0	0.0
Connecticut	198	166	83.8	6	3.0	7	3.5	19	9.6
Delaware	27	19	70.4	1	3.7	0	0.0	7	25.9
District of Columbia	34	1	2.9	0	0.0	0	0.0	33	97.1
Florida	73	67	91.8	0	0.0	1	1.4	5	6.8
Georgia	180	180	100.0	0	0.0	0	0.0	0	0.0
Hawaii	1	1	100.0	0	0.0	0	0.0	0	0.0
Idaho	116	115	99.1	0	0.0	1	0.9	0	0.0
Illinois	1,055	894	84.7	156	14.8	5	0.5	0	0.0
Indiana	328	295	89.9	29	8.8	3	0.9	1	0.3
Iowa	389	374	96.1	15	3.9	0	0.0	0	0.0
Kansas	304	304	100.0	0	0.0	0	0.0	0	0.0
Kentucky	178	176	98.9	0	0.0	2	1.1	0	0.0
Louisiana	86	78	90.7	0	0.0	8	9.3	0	0.0
Maine	325	282	86.8	39	12.0	3	0.9	1	0.3
Maryland	24	24	100.0	0	0.0	0	0.0	0	0.0
Massachusetts	477	349	73.2	86	18.0	1	0.2	41	8.6
Michigan	805	734	91.2	57	7.1	4	0.5	10	1.2
Minnesota	486	415	85.4	66	13.6	5	1.0	0	0.0
Mississippi	162	152	93.8	0	0.0	10	6.2	0	0.0
Missouri	530	524	98.9	0	0.0	2	0.4	4	0.8
Montana	532	453	85.2	77	14.5	2	0.4	0	0.0
Nebraska	692	576	83.2	111	16.0	5	0.7	0	0.0
Nevada	18	17	94.4	0	0.0	1	5.6	0	0.0
New Hampshire	256	178	69.5	78	30.5	0	0.0	0	0.0
New Jersey	671	604	90.0	12	1.8	0	0.0	55	8.2
New Mexico	89	89	100.0	0	0.0	0	0.0	0	0.0
New York	779	703	90.2	38	4.9	0	0.0	38	4.9
North Carolina	209	120	57.4	0	0.0	2	1.0	87	41.6
North Dakota	271	230	84.9	38	14.0	3	1.1	0	0.0
Ohio	796	662	83.2	60	7.5	3	0.4	71	8.9
Oklahoma	562	544	96.8	0	0.0	0	0.0	18	3.2
Oregon	220	197	89.5	21	9.5	2	0.9	0	0.0
Pennsylvania	683	501	73.4	101	14.8	15	2.2	66	9.7
Rhode Island	37	36	97.3	0	0.0	1	2.7	0	0.0
South Carolina	104	90	86.5	14	13.5	0	0.0	0	0.0
South Dakota	199	176	88.4	18	9.0	5	2.5	0	0.0
Tennessee	138	138	100.0	0	0.0	0	0.0	0	0.0
Texas	1,219	1,040	85.3	20	1.6	0	0.0	159	13.0
Utah	46	40	87.0	4	8.7	2	4.3	0	0.0
Vermont	350	288	82.3	60	17.1	1	0.3	1	0.3
Virginia	181	135	74.6	38	21.0	3	1.7	5	2.8
Washington	305	296	97.0	9	3.0	0	0.0	0	0.0
West Virginia	57	55	96.5	0	0.0	2	3.5	0	0.0
Wisconsin	450	431	95.8	16	3.6	3	0.7	0	0.0
Wyoming	59	48	81.4	11	18.6	0	0.0	0	0.0
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs									
DoDDS: DoDs Overseas	11	0	0.0	0	0.0	0	0.0	11	100.0
DDESS: DoDs Domestic	17	0	0.0	0	0.0	0	0.0	17	100.0
Bureau of Indian Affairs	24	0	0.0	0	0.0	0	0.0	24	100.0
American Samoa	1	1	100.0	0	0.0	0	0.0	0	0.0
Guam	1	1	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	1	1	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1	1	100.0	0	0.0	0	0.0	0	0.0
Virgin Islands	1	1	100.0	0	0.0	0	0.0	0	0.0

[1] Regular school districts include those that are components of supervisory unions.

[2] States may report charter schools under the category of other agencies. For example, the District of Columbia reports each charter school as a separate agency.

NOTE: Detail may not sum to totals because of rounding. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2000–01.

Table 3.—Percentage of public elementary and secondary schools and percentage of students in membership, by instructional level and by state: School year 2000–01

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
United States	90,640	57.7	49.2	17.2	20.0	19.1	27.7	6.0	3.1
Alabama	1,380	50.9	44.1	15.8	17.1	19.8	25.3	13.5	13.5
Alaska	502	35.1	42.9	6.6	12.5	13.5	24.6	44.8	19.9
Arizona	1,633	55.5	52.3	13.3	15.9	17.3	24.6	13.8	7.2
Arkansas	1,130	51.2	46.2	16.5	19.9	28.2	27.9	4.2	6.0
California	8,757	62.0	51.8	14.4	18.4	19.0	27.3	4.6	2.5
Colorado	1,590	58.1	49.5	17.4	20.4	20.2	27.7	4.3	2.4
Connecticut	1,073	61.7	50.0	17.7	21.4	17.0	27.5	3.6	1.1
Delaware	191	52.9	43.7	22.5	25.7	16.2	28.8	8.4	1.8
District of Columbia	165	68.5	66.0	6.7	6.4	10.9	17.7	13.9	9.9
Florida	3,231	53.3	48.2	15.0	20.9	12.6	25.3	19.2	5.6
Georgia	1,946	60.8	50.1	20.6	22.5	16.3	25.5	2.4	2.0
Hawaii	261	67.0	53.0	13.0	15.8	13.8	28.2	6.1	3.0
Idaho	653	52.7	47.7	16.8	21.8	25.0	28.0	5.5	2.5
Illinois	4,282	61.4	55.4	16.8	15.6	17.6	27.1	4.2	1.8
Indiana	1,882	61.6	49.9	17.2	19.0	18.3	28.8	3.0	2.3
Iowa	1,529	53.4	45.6	19.4	19.9	23.9	32.0	3.2	2.5
Kansas	1,426	57.4	48.9	17.3	19.6	25.0	31.4	0.3	0.2
Kentucky	1,376	56.9	49.5	16.5	20.4	20.9	29.1	5.7	1.0
Louisiana	1,508	52.9	48.2	19.0	20.1	16.6	25.5	11.5	6.2
Maine	686	62.8	46.2	18.4	22.4	16.2	29.7	2.6	1.6
Maryland	1,342	64.8	49.7	17.9	21.6	15.0	27.6	2.4	1.1
Massachusetts	1,898	64.3	49.2	16.6	20.6	16.1	27.5	3.0	2.7
Michigan	3,743	57.7	47.8	16.9	20.8	19.1	28.0	6.3	3.5
Minnesota	2,105	49.4	46.0	13.5	18.9	30.1	32.9	7.0	2.1
Mississippi	884	49.4	45.1	20.4	20.4	20.8	25.3	9.4	9.2
Missouri	2,266	54.9	48.3	16.2	19.5	21.8	29.2	7.1	3.0
Montana	878	53.0	47.6	26.8	20.1	20.0	31.7	0.2	0.6
Nebraska	1,296	65.9	50.6	7.3	14.8	23.4	34.3	3.4	0.4
Nevada	500	62.6	51.9	15.0	21.2	20.0	26.4	2.4	0.4
New Hampshire	524	67.0	46.6	17.9	24.3	14.7	28.9	0.4	0.2
New Jersey	2,407	64.4	51.8	17.7	19.6	15.2	27.4	2.8	1.2
New Mexico	763	57.3	47.3	20.4	22.1	19.4	28.1	2.9	2.5
New York	4,292	57.8	48.8	17.1	19.6	18.1	27.1	6.9	4.5
North Carolina	2,192	59.4	49.7	20.4	22.7	15.4	25.9	4.8	1.7
North Dakota	539	58.4	48.8	6.5	12.4	34.5	36.3	0.6	2.5
Ohio	3,827	57.1	45.4	19.3	20.4	19.8	31.3	3.8	3.0
Oklahoma	1,811	54.3	51.8	19.0	20.5	25.5	25.6	1.2	2.2
Oregon	1,263	59.5	46.9	17.3	21.2	18.5	30.4	4.7	1.5
Pennsylvania	3,183	60.9	46.1	18.0	21.0	19.1	30.3	2.0	2.5
Rhode Island	320	66.6	48.3	17.8	23.2	14.4	28.3	1.3	0.2
South Carolina	1,067	56.3	48.1	22.7	23.3	18.7	27.1	2.3	1.6
South Dakota	756	50.5	46.9	23.5	21.5	23.7	31.0	2.2	0.7
Tennessee	1,575	61.1	51.8	17.0	18.3	17.5	27.0	4.5	2.9
Texas	7,519	50.4	48.3	20.1	22.6	18.2	25.7	11.3	3.4
Utah	793	59.1	51.3	16.3	21.0	19.9	25.1	4.7	2.6
Vermont	353	72.5	52.1	7.1	9.3	13.6	31.7	6.8	6.9
Virginia	1,841	62.6	48.5	18.2	21.5	17.2	29.2	2.1	0.9
Washington	2,141	55.1	48.0	16.2	20.3	21.1	28.5	7.7	3.2
West Virginia	794	63.7	49.4	17.3	21.1	16.2	27.6	2.8	1.8
Wisconsin	2,180	56.6	46.5	17.7	19.4	22.2	31.9	3.5	2.2
Wyoming	387	57.6	46.6	19.6	22.4	19.6	29.1	3.1	1.9
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs									
DoDDS: DoDs Overseas	156	55.8	57.6	13.5	13.5	23.1	22.0	7.7	6.8
DDESS: DoDs Domestic	71	70.4	69.8	16.9	17.0	7.0	7.9	5.6	5.2
Bureau of Indian Affairs	177	59.3	51.2	2.3	1.8	11.9	14.8	26.6	32.3
American Samoa	31	74.2	71.0	3.2	4.7	19.4	24.0	3.2	0.3
Guam	38	71.1	50.0	18.4	23.0	10.5	27.1	0.0	0.0
Northern Marianas	29	82.8	62.9	3.4	12.5	10.3	24.1	3.4	0.5
Puerto Rico	1,535	58.9	45.9	14.8	17.4	12.0	20.7	14.3	16.0
Virgin Islands	35	65.7	53.6	20.0	17.5	11.4	27.5	2.9	1.4

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. Table excludes 2,654 schools (21 in outlying areas) for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

Table 4.—Number of regular public school districts providing instruction and percentage of students in membership, by grade span and by state: School year 2000–01

		Grade span							
		PK, K, 1 to 8 or below		PK, K, 1 to 9–12		7, 8, 9 to 7–12		Other	
State	Total districts	Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students
United States	14,514	3,047	5.3	10,785	92.4	552	2.2	130	0.1
Alabama	128	0	0.0	128	100.0	0	0.0	0	0.0
Alaska	53	0	0.0	53	100.0	0	0.0	0	0.0
Arizona	372	152	17.7	150	72.5	49	9.5	21	0.4
Arkansas	310	0	0.0	310	100.0	0	0.0	0	0.0
California	985	548	19.4	351	72.4	85	8.0	1	0.2
Colorado	176	0	0.0	176	100.0	0	0.0	0	0.0
Connecticut	166	0	0.0	166	100.0	0	0.0	0	0.0
Delaware	19	0	0.0	15	94.2	3	4.9	1	0.8
District of Columbia	1	0	0.0	1	100.0	0	0.0	0	0.0
Florida	67	0	0.0	67	100.0	0	0.0	0	0.0
Georgia	180	6	0.1	174	99.9	0	0.0	0	0.0
Hawaii	1	0	0.0	1	100.0	0	0.0	0	0.0
Idaho	113	6	0.1	107	99.9	0	0.0	0	0.0
Illinois	894	386	25.5	407	63.4	99	10.7	2	0.4
Indiana	292	1	(#)	291	100.0	0	0.0	0	0.0
Iowa	373	0	0.0	373	100.0	0	0.0	0	0.0
Kansas	304	0	0.0	304	100.0	0	0.0	0	0.0
Kentucky	176	5	0.3	171	99.7	0	0.0	0	0.0
Louisiana	78	6	0.2	68	99.7	3	0.1	1	(#)
Maine	280	107	16.2	111	81.2	6	1.4	56	1.2
Maryland	24	0	0.0	24	100.0	0	0.0	0	0.0
Massachusetts	244	66	5.0	176	95.0	2	0.1	0	0.0
Michigan	728	131	2.2	563	97.5	21	0.2	13	0.2
Minnesota	410	35	0.7	339	98.8	25	0.3	11	0.2
Mississippi	152	1	(#)	149	99.8	2	0.2	0	0.0
Missouri	523	73	1.3	450	98.7	0	0.0	0	0.0
Montana	447	273	38.5	64	33.6	110	27.9	0	0.0
Nebraska	544	273	3.2	253	95.5	18	1.3	0	0.0
Nevada	17	0	0.0	17	100.0	0	0.0	0	0.0
New Hampshire	164	88	19.3	65	74.3	9	4.4	2	2.0
New Jersey	581	293	18.6	217	73.1	65	8.1	6	0.2
New Mexico	89	0	0.0	89	100.0	0	0.0	0	0.0
New York	701	43	1.1	641	98.2	7	0.7	10	0.1
North Carolina	120	1	(#)	118	100.0	0	0.0	1	(#)
North Dakota	227	51	2.5	170	96.9	6	0.6	0	0.0
Ohio	611	1	(#)	610	100.0	0	0.0	0	0.0
Oklahoma	544	113	3.5	430	96.4	0	0.0	1	(#)
Oregon	197	17	0.1	179	99.9	1	(#)	0	0.0
Pennsylvania	500	2	0.1	498	99.9	0	0.0	0	0.0
Rhode Island	36	4	1.4	31	97.5	0	0.0	1	1.0
South Carolina	89	0	0.0	88	99.8	0	0.0	1	0.2
South Dakota	173	4	0.1	169	99.9	0	0.0	0	0.0
Tennessee	137	14	2.5	123	97.5	0	0.0	0	0.0
Texas	1,040	64	0.3	976	99.7	0	0.0	0	0.0
Utah	40	0	0.0	40	100.0	0	0.0	0	0.0
Vermont	246	180	42.1	35	32.3	30	23.6	1	2.0
Virginia	132	0	0.0	132	100.0	0	0.0	0	0.0
Washington	296	49	1.0	246	99.0	0	0.0	1	(#)
West Virginia	55	0	0.0	55	100.0	0	0.0	0	0.0
Wisconsin	431	52	2.9	368	95.8	11	1.3	0	0.0
Wyoming	48	2	0.6	46	99.4	0	0.0	0	0.0
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs*									
DoDDS: DoDs Overseas	11	0	0.0	11	100.0	0	0.0	0	0.0
DDESS: DoDs Domestic	17	9	30.0	8	70.0	0	0.0	0	0.0
Bureau of Indian Affairs	24	1	2.0	22	98.0	0	0.0	1	(#)
American Samoa	1	0	0.0	1	100.0	0	0.0	0	0.0
Guam	1	0	0.0	1	100.0	0	0.0	0	0.0
Northern Marianas	1	0	0.0	1	100.0	0	0.0	0	0.0
Puerto Rico	1	0	0.0	1	100.0	0	0.0	0	0.0
Virgin Islands	1	0	0.0	1	100.0	0	0.0	0	0.0

#Rounds to zero.

*Table includes 28 Department of Defense and 24 Bureau of Indian Affairs school districts that are technically federally operated agencies; this is in order to report data for these agencies in the table.

NOTE: For states that did not provide a grade span, grade span was determined by the highest and lowest grades served among all schools associated with the district. "Other" includes all grade configurations not reported in the specified categories and includes ungraded districts. Table excludes 345 regular school districts for which no students were reported in membership. U.S. totals include the 50 states and the District of Columbia. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "Local Education Agency Universe Survey," 2000–01.

Table 5.—Average public school size (mean number of students per school), by instructional level and by state: School year 2000–01

State	Schools having membership	Instructional level			
		Primary	Middle	High	Other
United States	90,640	443	605	751	270
Alabama	1,380	457	572	676	528
Alaska	502	325	506	483	118
Arizona	1,633	506	642	765	280
Arkansas	1,130	360	481	393	577
California	8,757	577	880	993	380
Colorado	1,590	388	535	625	252
Connecticut	1,073	424	633	850	163
Delaware	191	496	686	1,064	132
District of Columbia	165	403	403	676	297
Florida	3,231	682	1,049	1,517	220
Georgia	1,946	611	813	1,161	615
Hawaii	261	558	856	1,444	348
Idaho	653	339	485	421	169
Illinois	4,282	432	445	735	211
Indiana	1,882	425	581	829	415
Iowa	1,529	275	329	431	246
Kansas	1,426	276	367	407	203
Kentucky	1,376	396	563	634	81
Louisiana	1,508	449	520	756	266
Maine	686	223	370	556	189
Maryland	1,342	488	766	1,173	288
Massachusetts	1,898	395	638	884	467
Michigan	3,743	377	558	665	252
Minnesota	2,105	378	567	444	124
Mississippi	884	514	564	684	551
Missouri	2,266	354	485	539	171
Montana	878	158	133	279	449
Nebraska	1,296	169	445	324	27
Nevada	500	565	965	901	115
New Hampshire	524	277	538	782	232
New Jersey	2,407	439	605	983	229
New Mexico	763	347	454	608	367
New York	4,292	567	769	1,003	434
North Carolina	2,192	494	656	992	211
North Dakota	539	169	387	213	903
Ohio	3,827	391	520	777	389
Oklahoma	1,811	328	371	345	642
Oregon	1,263	334	518	696	136
Pennsylvania	3,183	432	666	905	711
Rhode Island	320	356	641	968	87
South Carolina	1,067	544	653	925	431
South Dakota	756	158	155	223	49
Tennessee	1,575	482	613	879	362
Texas	7,519	517	608	765	160
Utah	793	523	778	758	341
Vermont	353	208	380	673	293
Virginia	1,841	482	734	1,057	262
Washington	2,141	409	588	635	193
West Virginia	794	280	441	613	239
Wisconsin	2,180	331	443	579	260
Wyoming	387	188	265	345	141
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs					
DoDDS: DoDs Overseas	156	487	474	450	419
DDESS: DoDs Domestic	71	477	484	543	448
Bureau of Indian Affairs	177	229	206	330	322
American Samoa	31	485	743	627	45
Guam	38	600	1,063	2,194	0
Northern Marianas	29	262	1,253	805	47
Puerto Rico	1,535	311	469	689	446
Virgin Islands	35	453	487	1,338	271

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

Table 6.—Median public school student/teacher ratio, by instructional level and by state: School year 2000–01

State	Instructional level			
	Primary	Middle	High	Other
Reporting states*	16.0	15.5	14.8	9.7
Alabama	14.7	17.7	16.1	15.5
Alaska	17.0	16.7	15.2	11.5
Arizona	17.6	18.3	16.5	(†)
Arkansas	15.6	14.5	11.3	12.6
California	19.7	22.6	21.4	16.8
Colorado	16.9	16.8	15.4	13.7
Connecticut	14.4	12.8	12.5	14.9
Delaware	16.3	16.1	15.7	5.9
District of Columbia	13.6	13.5	14.1	8.7
Florida	17.2	19.5	19.2	4.9
Georgia	16.1	15.8	16.6	15.1
Hawaii	17.2	16.9	17.4	13.3
Idaho	18.0	17.8	15.2	11.9
Illinois	16.7	15.4	14.4	8.0
Indiana	17.7	17.1	17.1	13.2
Iowa	14.6	13.8	13.1	11.1
Kansas	14.0	13.8	11.8	6.8
Kentucky	21.0	15.6	15.3	7.5
Louisiana	14.9	15.5	15.5	13.1
Maine	13.4	14.1	13.9	9.7
Maryland	16.7	15.7	16.9	5.4
Massachusetts	—	—	—	—
Michigan	18.2	17.7	18.3	13.9
Minnesota	15.4	16.5	14.7	6.0
Mississippi	16.8	16.4	16.4	15.5
Missouri	14.2	14.9	13.6	8.3
Montana	13.1	13.1	11.6	9.2
Nebraska	12.2	13.6	11.7	8.1
Nevada	17.5	21.0	18.2	5.3
New Hampshire	14.5	14.5	13.1	17.2
New Jersey	15.2	13.7	12.8	7.1
New Mexico	14.6	14.7	14.5	15.1
New York	14.7	14.1	14.1	10.3
North Carolina	15.0	14.4	14.4	6.4
North Dakota	12.4	14.0	12.5	15.0
Ohio	17.2	16.0	16.8	15.0
Oklahoma	15.6	15.0	12.5	16.8
Oregon	19.4	19.1	18.4	10.5
Pennsylvania	16.9	15.9	15.6	12.8
Rhode Island	15.9	14.2	13.8	7.6
South Carolina	14.7	15.5	15.4	13.7
South Dakota	12.3	13.6	11.3	9.2
Tennessee	—	—	—	—
Texas	15.1	14.2	12.6	8.0
Utah	21.6	21.6	20.9	13.8
Vermont	12.1	12.4	11.4	10.8
Virginia	14.1	13.6	14.1	6.8
Washington	18.9	20.0	19.6	7.7
West Virginia	14.0	14.2	15.1	7.1
Wisconsin	14.8	14.4	14.8	12.3
Wyoming	12.5	12.9	11.7	9.1
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs				
DoDDS: DoDs Overseas	15.0	15.1	12.7	11.0
DDESS: DoDs Domestic	15.0	13.4	12.5	11.0
Bureau of Indian Affairs	—	—	—	—
American Samoa	19.5	28.6	16.5	3.0
Guam	15.0	13.6	18.9	(†)
Northern Marianas	17.9	17.9	12.4	15.7
Puerto Rico	15.3	16.7	19.6	15.5
Virgin Islands	13.3	10.3	13.4	7.5

—Not available.

†Not applicable.

*Total of reporting states, does not include Massachusetts or Tennessee.

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. U.S. totals include the 50 states and the District of Columbia. If all schools were ranked by student/teacher ratio from the smallest to the largest, half of the schools would fall below the median. For example, half the primary schools in Alabama had a student/teacher ratio of less than 14.7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

Table 7.—Distribution of regular public school districts and students, by district membership size: School year 2000–01

District membership size	Number of districts	Percentage of districts	Percentage of students
United States	14,514	100.0	100.0
100,000 or more	24	0.2	12.2
25,000 to 99,999	216	1.5	20.1
10,000 to 24,999	581	4.0	18.8
7,500 to 9,999	323	2.2	6.0
5,000 to 7,499	713	4.9	9.3
2,500 to 4,999	2,061	14.2	15.5
2,000 to 2,499	806	5.6	3.9
1,500 to 1,999	1,071	7.4	4.0
1,000 to 1,499	1,571	10.8	4.2
800 to 999	805	5.5	1.6
600 to 799	971	6.7	1.5
450 to 599	955	6.6	1.1
300 to 449	1,152	7.9	0.9
150 to 299	1,471	10.1	0.7
1 to 149	1,794	12.4	0.3

NOTE: Table includes the 50 states and the District of Columbia, and excludes 345 regular school districts for which no students were reported in membership. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2000–01.

Table 8.—Distribution of public schools and students, by community type: School year 2000–01

Community type	Number of schools	Percentage of schools	Percentage of students
United States	90,637	100.0	100.0
Large city	11,152	12.3	16.0
Midsize city	11,142	12.3	13.4
Urban fringe, large city	21,543	23.8	29.9
Urban fringe, midsize city	7,703	8.5	9.3
Large town	1,163	1.3	1.2
Small town	10,395	11.5	9.5
Rural	17,296	19.1	9.8
Rural urban fringe	10,243	11.3	11.0

NOTE: Community types classify the location of a school relative to populous areas. Table includes the 50 states and the District of Columbia, and excludes 2,633 schools in these jurisdictions for which no students were reported in membership. Table excludes three schools for which no locale codes could be assigned. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

Table 9.—Number of Title I, magnet, and charter schools and percentage of students served, by state: School year 2000–01

State	Number of Title I eligible schools[1]	Percentage of all students in these schools	Number of Title I schoolwide schools	Percentage of all students in these schools	Number of magnet schools[2]	Percentage of all students in these schools	Number of charter schools[3]	Percentage of all students in these schools
United States	—	—	—	—	—	—	1,993	—
Alabama	941	63.7	577	35.8	42	2.9	(†)	(†)
Alaska	280	33.0	80	11.0	—	—	19	1.9
Arizona	—	—	—	—	—	—	313	5.2
Arkansas	826	67.0	416	30.0	6	0.8	3	0.2
California	4,879	57.7	2,273	30.2	447	9.1	302	1.9
Colorado	791	44.5	194	10.9	2	0.1	77	2.8
Connecticut	455	39.0	97	9.2	16	1.0	16	0.4
Delaware	100	48.5	23	10.5	2	0.9	7	2.4
District of Columbia	113	73.6	113	73.6	3	1.8	33	—
Florida	1,204	34.5	1,081	31.1	—	—	148	1.1
Georgia	966	42.8	615	26.5	71	4.0	30	1.4
Hawaii	123	40.2	111	36.4	(†)	(†)	6	0.7
Idaho	488	66.0	85	10.0	(†)	(†)	9	0.4
Illinois	—	—	—	—	372	13.1	20	0.4
Indiana	1,026	46.9	150	6.4	(†)	(†)	(†)	(†)
Iowa	745	40.0	116	7.1	(†)	(†)	(†)	(†)
Kansas	—	—	([3])	—	([3])	2.4	1	(#)
Kentucky	842	55.9	658	42.1	—	—	(†)	(†)
Louisiana	839	49.2	698	40.9	70	5.9	19	0.4
Maine	548	68.6	53	4.9	([3])	0.1	1	0.1
Maryland	411	23.6	331	18.9	(†)	(†)	(†)	(†)
Massachusetts	1,077	51.9	433	20.8	8	0.5	41	1.4
Michigan	—	—	—	—	(†)	(†)	205	3.2
Minnesota	954	40.3	208	8.2	65	3.4	73	1.1
Mississippi	678	70.3	582	58.7	5	0.5	1	0.1
Missouri	1,191	45.8	362	13.3	48	2.4	21	0.8
Montana	668	77.7	114	12.9	(†)	(†)	(†)	(†)
Nebraska	—	—	—	—	—	—	(†)	(†)
Nevada	109	18.6	77	14.3	9	1.3	8	0.4
New Hampshire	250	49.8	20	3.3	(†)	(†)	0	0.0
New Jersey	1,432	58.1	—	—	—	—	53	0.8
New Mexico	501	53.9	275	30.7	1	0.1	10	0.4
New York	2,769	60.6	—	—	([3])	0.6	38	(#)
North Carolina	1,065	42.7	969	35.8	167	8.7	90	1.2
North Dakota	455	70.7	52	8.6	(†)	(†)	(†)	(†)
Ohio	2,566	61.4	1,219	28.4	(†)	(†)	66	0.8
Oklahoma	1,160	57.5	748	35.4	(†)	(†)	6	0.2
Oregon	517	34.5	187	13.0	4	0.2	12	0.1
Pennsylvania	2,208	64.0	512	15.8	—	—	65	1.0
Rhode Island	152	40.1	59	17.5	16	7.0	3	0.4
South Carolina	509	39.5	441	32.9	—	—	8	0.1
South Dakota	739	99.5	88	10.0	(†)	(†)	(†)	(†)
Tennessee	—	—	([3])	—	12	0.8	(†)	(†)
Texas	4,430	57.2	3,851	50.1	—	—	201	0.9
Utah	216	19.8	118	10.6	(†)	(†)	8	0.1
Vermont	211	59.2	70	20.9	(†)	(†)	(†)	(†)
Virginia	716	27.7	201	7.8	46	3.0	2	(#)
Washington	—	—	—	—	(†)	(†)	(†)	(†)
West Virginia	438	43.7	343	32.4	0	0.0	(†)	(†)
Wisconsin	1,086	46.2	244	12.8	(†)	(†)	78	1.1
Wyoming	150	35.1	45	11.2	0	0.0	0	0.0
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs								
DoDDS: DoDs Overseas	—	—	—	—	0	0.0	0	0.0
DDESS: DoDs Domestic	—	—	—	—	0	0.0	0	0.0
Bureau of Indian Affairs	—	—	—	—	0	0.0	0	0.0
American Samoa	—	—	—	—	0	0.0	0	0.0
Guam	—	—	—	—	0	0.0	0	0.0
Northern Marianas	—	—	—	—	0	0.0	0	0.0
Puerto Rico	1,462	95.2	1,295	84.7	151	10.9	36	2.9
Virgin Islands	36	100.0	—	—	1	(#)	0	0.0

—Not available.

†Not applicable.

#Rounds to zero.

[1] Number of Title I eligible schools includes those with and without schoolwide Title I programs.

[2] Zero indicates that this type of school is authorized but none were operating.

[3] Data were missing for more than 20 percent of schools.

NOTE: Percentages are based on all schools reporting in a state. Numbers of schools include those not reporting students in membership. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01.

Table 10.—Number and percentage of public school students participating in selected programs, by state: School year 2000–01

State	Number of students with IEPs	Percentage of students with IEPs	Number of of students receiving LEP services	Percentage of students receiving LEP services	Number of students receiving school year migrant services[1]	Number of students receiving summer migrant services	Number of students eligible for free or reduced-price meals	Percentage of all students eligible for free or reduced-price meals
Reporting states	6,003,071[3]	12.8[3]	—	—	—	—	—	—
Alabama	98,638	13.5	7,226	1.0	—	—	335,143	46.0
Alaska	17,700	13.3	19,337	14.5	12,032	1,687	32,468	24.3
Arizona	89,809	10.2	131,933	15.0	—	—	—	—
Arkansas	55,189	12.3	11,850	2.6	7,162	—	205,058	45.6
California	648,799	10.7	1,479,819	24.5	180,378	113,297	2,820,611	46.6
Colorado	71,278	9.8	60,852	8.4	9,628	4,086	195,148	26.9
Connecticut	73,886	13.1	20,499	3.6	2,546	1,113	—	—
Delaware	15,798	13.8	2,081	1.8	—	245	37,766	32.9
District of Columbia	10,580	15.4	8,594	12.5	747	267	47,839	69.4
Florida	364,716	15.0	187,566	7.7	39,980	7,505	1,079,009	44.3
Georgia	163,619	11.3	54,444	3.8	21,747	3,841	624,511	43.2
Hawaii	21,968	11.9	12,718	6.9	1,730	369	80,657	43.7
Idaho	29,005	11.8	18,097	7.4	7,507	4,479	85,824	35.1
Illinois	287,315	14.0	126,475	6.2	—	—	—	—
Indiana	155,206	15.7	30,953	3.1	—	—	285,267	28.8
Iowa	68,271	13.8	11,253	2.3	4,121	405	131,553	26.7
Kansas	75,739	16.2	14,878	3.2	—	—	154,693	33.4
Kentucky	94,347	14.7	4,030	0.6	24,922	5,627	298,334	47.6
Louisiana	96,881	13.0	10,293	1.4	4,651	5,367	433,068	58.3
Maine	32,654	15.4	—	—	—	—	60,162	28.9
Maryland	111,105	13.0	24,213	2.8	343	727	255,872	30.0
Massachusetts	159,961	16.3	49,077	5.0	1,765	0	237,871	24.3
Michigan	227,653	13.4	—	—	—	—	504,044	29.6
Minnesota	108,985	12.8	44,360	5.2	1,193	2,115	218,867	25.6
Mississippi	62,304	12.5	2,176	0.4	3,297	(4)	319,670	64.2
Missouri	136,484	14.9	(4)	—	5,106	615	315,608	34.6
Montana	19,001	12.3	—	—	99	889	47,415	30.6
Nebraska	43,797	15.3	(4)	—	1,789	(4)	87,045	30.4
Nevada	38,160	11.2	—	—	—	803	92,978	27.3
New Hampshire	29,663	14.2	2,728	1.3	—	—	31,212	15.0
New Jersey	—	—	—	—	—	—	357,728	27.2
New Mexico	62,028	19.4	68,679	21.4	3,828	369	174,939	54.6
New York	426,517	14.8	230,625	8.0	—	—	1,236,945	42.9
North Carolina	179,497	13.9	44,165	3.4	—	(4)	470,316	36.4
North Dakota	13,437	12.3	—	—	320	(4)	31,840	29.2
Ohio	229,809	12.6	331	—	—	—	494,829	26.3
Oklahoma	85,343	13.7	38,042	6.1	—	803	300,179	48.2
Oregon	68,945	12.6	43,416	7.9	16,602	3,688	186,203	34.8
Pennsylvania	222,584	12.3	—	—	—	—	510,121	28.1
Rhode Island	30,503	19.4	10,245	6.5	148	62	52,209	33.2
South Carolina	101,482	14.9	5,121	0.8	—	(4)	320,254	47.1
South Dakota	16,626	12.9	4,270	3.3	1,635	—	37,857	29.4
Tennessee	142,709	15.9	—	—	—	—	—	—
Texas	483,442	11.9	570,453	14.1	69,220	—	1,823,029	44.9
Utah	53,921	11.3	38,998	8.2	3,185	3,249	135,428	28.3
Vermont	14,294	14.0	942	0.9	—	—	23,986	23.5
Virginia	161,869	14.1	36,802	3.2	1,100	807	320,233	28.0
Washington	115,160	11.5	—	—	—	—	—	—
West Virginia	50,290	17.6	920	0.3	50	—	143,446	50.1
Wisconsin	124,500	14.2	(4)	—	—	(4)	219,276	24.9
Wyoming	11,604	12.9	2,534	2.8	—	—	43,483	48.3

See footnotes on second page of this table.

Table 10.—Number and percentage of public school students participating in selected programs, by state: School year 2000–01—Continued

State	Number of students with IEPs	Percentage of students with IEPs	Number of students receiving LEP services	Percentage of students receiving LEP services	Number of students receiving school year migrant services[1]	Number of students receiving summer migrant services	Number of students eligible for free or reduced-price meals	Percentage of all students eligible for free or reduced-price meals
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs								
DoDDS: DoDs Overseas	5,596	7.6	4,639	6.3	—	—	—	—
DDESS: DoDs Domestic	3,065	9.0	1,701	5.0	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—	—	—
American Samoa	702	4.5	15,275	97.0	—	—	15,609[2]	99.4
Guam	2,014	6.2	12,358	38.1	—	—	14,110	43.5
Northern Marianas	504	5.0	—	—	—	—	9,779	97.8
Puerto Rico	65,576	10.7	—	—	(4)	197	495,926[2]	80.9
Virgin Islands	1,329	6.8	641	3.3	—	—	—	—

—Not available.

[1] Migrant students include those who were enrolled at any time during the previous (1999–2000) regular school year. They are reported for each school in which they enrolled; because this is a duplicated count, the table does not show migrants as a percentage of all students.

[2] American Samoa and Puerto Rico did not report students eligible for reduced-price meals.

[3] Total of reporting states; does not include New Jersey.

[4] Data were missing for more than 20 percent of schools or districts.

NOTE: Percentages are based on schools and agencies reporting. Detail may not sum to totals because of rounding. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "Local Education Agency Universe Survey," 2000–01.

Table 11.—Percentage of students who are minority, by community type and by state: School year 2000–01

State	Total students	Number of minority students	Percentage of minority students by community type: City, large and midsize	Urban fringe of city	Small town or rural
Reporting states[1]	47,222,778	18,223,569	61.6	34.7	20.2
Alabama	740,091	285,613	69.5	28.6	30.5
Alaska	133,356	51,307	36.4	0.0	40.8
Arizona	877,696	414,394	51.0	38.7	50.6
Arkansas	449,959	127,263	46.2	14.7	22.9
California	6,142,348	3,843,815	73.3	60.0	41.1
Colorado	724,508	230,122	44.8	28.7	20.8
Connecticut	562,179	168,257	68.5	19.8	8.0
Delaware	114,676	45,090	55.7	37.6	30.0
District of Columbia	68,925	65,812	95.5	0.0	100.0[2]
Florida	2,434,821	1,132,395	52.1	49.8	30.6
Georgia	1,444,937	655,022	80.1	48.6	33.1
Hawaii	184,360	146,748	81.8	79.8	78.0
Idaho	245,117	34,154	13.7	16.9	14.1
Illinois	2,048,792	824,284	75.0	30.2	8.0
Indiana	989,225	162,297	40.5	11.4	3.7
Iowa	495,080	48,066	21.5	7.1	4.4
Kansas	470,610	98,368	42.0	11.5	13.9
Kentucky	665,850	76,063	31.2	16.4	5.0
Louisiana	743,089	379,586	74.0	42.6	38.5
Maine	207,037	6,994	10.1	3.2	2.5
Maryland	852,920	397,756	76.5	48.3	20.3
Massachusetts	975,150	236,442	55.6	13.5	5.6
Michigan	1,743,337	440,831	70.7	17.0	6.9
Minnesota	854,340	145,827	52.3	11.7	7.7
Mississippi	497,871	262,248	74.9	28.2	53.2
Missouri	912,744	190,729	47.8	22.9	6.2
Montana	154,875	21,301	13.2	6.1	14.6
Nebraska	286,199	48,579	28.3	16.7	9.9
Nevada	340,706	147,109	50.1	45.7	24.7
New Hampshire	208,461	9,339	12.7	3.7	2.1
New Jersey	1,307,828	521,162	78.2	37.6	16.0
New Mexico	320,306	207,386	62.5	71.4	67.8
New York	2,882,188	1,299,515	80.0	22.9	6.5
North Carolina	1,293,638	504,980	53.1	31.2	33.5
North Dakota	109,201	11,589	8.6	7.0	12.1
Ohio	1,835,049	359,849	53.8	12.7	3.2
Oklahoma	623,110	218,567	47.6	25.7	33.3
Oregon	546,231	104,394	26.6	19.6	15.3
Pennsylvania	1,814,311	394,903	65.7	13.1	4.7
Rhode Island	157,347	40,398	52.7	12.7	4.2
South Carolina	677,411	305,814	54.7	35.9	47.5
South Dakota	128,603	17,348	15.7	7.8	13.1
Tennessee	909,388	249,757	—	—	—
Texas	4,059,619	2,352,630	74.3	45.6	41.3
Utah	481,687	67,825	27.7	11.7	10.1
Vermont	102,049	3,736	13.6	5.1	3.0
Virginia	1,144,915	416,502	58.5	34.5	22.2
Washington	1,004,770	255,782	35.3	25.0	18.9
West Virginia	286,367	15,217	10.7	6.5	3.9
Wisconsin	879,476	169,512	44.5	9.7	6.0
Wyoming	89,940	10,892	15.1	16.4	10.7
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs					
DoDDS: DoDs Overseas	73,581	23,727	—	—	—
DDESS: DoDs Domestic	34,174	14,495	41.0	37.2	38.8
Bureau of Indian Affairs	46,938	46,938	100.0	100.0	100.0
American Samoa	15,702	15,702	—	—	—
Guam	32,473	31,865	—	—	—
Northern Marianas	10,004	9,978	—	—	—
Puerto Rico	612,725	612,725	—	—	—
Virgin Islands	19,459	19,311	—	—	—

—Not available.

[1] Total of reporting states; does not include Tennessee.

[2] Represents one school located in a small town locale outside the District of Columbia.

NOTE: Minority includes all groups except White, non-Hispanic. Community types classify the location of a school relative to populous areas. Percentages are based on schools reporting. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01.

Public High School Dropouts and Completers From the Common Core of Data: School Years 1998–99 and 1999–2000

Beth Aronstamm Young

This article was originally published as the E.D. Tabs report of the same name. The universe data are from the NCES Common Core of Data (CCD).

Two of the most important indicators of the educational system's success are the rates at which young people complete and drop out of school each year. The Common Core of Data (CCD) survey system of the National Center for Education Statistics (NCES) annually collects information about public school dropouts and completers. This report presents the number and percentage of students dropping out and completing public school (among states that reported dropouts) for school years 1998–99 and 1999–2000.

Background

The CCD consists of six surveys that are completed each year by state education agencies (SEAs). Three of these surveys provide basic statistical information about public elementary/secondary institutions, students, and staff. Although all information is reported directly from SEAs, the surveys include data about individual states, local education agencies, and schools. The numbers of students who complete high school with a regular diploma or some alternative credential have been reported at the state and local education agency levels since the 1987–88 CCD collection. A dropout statistic was added to the *Local Education Agency (School District) Universe* data file beginning with the 1992–93 collection (reporting 1991–92 dropouts).

Limitations in This Report

The high school 4-year completion rate presented here differs in its calculation from other published rates, and readers should be alert to this when making comparisons with other studies. The inclusion of both regular and other high school completions, and the exclusion of General Educational Development (GED) recipients, may also lead to differences with other reports (see the "High School Completers" section for a further description).

Also, state and local policies and data collection administration may have profound effects on the count of dropouts and completers reported by a state. Dropout and completion data collected by the CCD are reported from the administrative records of SEAs. Some states collect their data through student-level records systems, while others collect aggregate data from schools and districts. Although state CCD coordinators verify each year that they have followed the CCD dropout definition, states vary in their ability to track students who move in and out of districts, and it is probable that some students have been misclassified.

High School Dropouts

Determining dropout status

The CCD definition determines whether an individual is a dropout by his or her enrollment status at the beginning of the school year (the same day reflected in the enrollment count). Beginning in 1990, NCES defined a dropout as an individual who

1. was enrolled in school at some time during the previous school year (e.g., 1998–99); and
2. was not enrolled at the beginning of the current school year (e.g., 1999–2000); and
3. has not graduated from high school or completed a state- or district-approved educational program; and
4. does not meet any of the following exclusionary conditions:
    a. transfer to another public school district, private school, or state- or district-approved educational program (including correctional or health facility programs);
    b. temporary absence due to suspension or school-excused illness; or
    c. death.

Individuals who complete 1 year of school but fail to enroll at the beginning of the subsequent year ("summer dropouts") are counted as dropouts from the school year and grade in which they fail to enroll. Those who leave secondary education but are enrolled in an adult education program at the beginning of the school year are considered dropouts. However, note that dropout status is determined by a student's status on October 1. Students who receive their GED certificate by October 1 are not counted as dropouts if the state or district recognizes this as an approved program. Although a student whose whereabouts is unknown is considered a dropout, states are not required to count students who leave the United States as dropouts even if there is no information about such students' subsequent enrollment status. A student can be counted as a dropout only once for a single school year but can, if he or she repeatedly drops out and re-enrolls, appear as a dropout in more than 1 year.

Dropout rate

This is an annual event dropout rate: the number of dropouts for a school year divided by the number of students enrolled at the beginning of that school year. For example, to compute the 9th- through 12th-grade dropout rate, the calculation is

$$\frac{\text{number of 9th- through 12th-grade dropouts}}{\text{October 1st 9th- through 12th-grade enrollment count}}$$

For a more detailed description of the development and limitations of the dropout rate, see *Public High School Dropouts and Completers From the Common Core of Data: School Years 1991–92 Through 1997–98* (Young and Hoffman 2002).

Dropout results

In the 1999–2000 school year, 37 states (including the District of Columbia), and in the 1998–99 school year, 38 states (including the District of Columbia), reported dropouts using the CCD definition. The change in the number of states between the two collection periods occurred because Arizona and Idaho did not report dropouts using the CCD definition in 1999–2000, while Texas did report them using the CCD definition in 1999–2000 but not in 1998–99. Table 1 presents data on 1999–2000 and 1998–99 dropouts. In the 1999–2000 school year, the 9th-through 12th-grade dropout rate in the reporting states ranged from 2.5 percent in Iowa to 9.2 percent in Louisiana. In the 1998–99 school year, the dropout rate ranged from 2.4 percent in North Dakota to 10.0 percent in Louisiana.

The majority of reporting states in 1999–2000 (24 of the 37) had dropout rates ranging from 4.0 to 6.0 percent. Eight states had a dropout rate lower than 4.0 percent in the 1999–2000 school year: Connecticut, Iowa, Maine, New Jersey, North Dakota, South Dakota, Virginia, and Wisconsin. In 1998–99, the number of states with dropout rates ranging from 4.0 to 6.0 percent was smaller, only 20 out of the 38. Nine states had a dropout rate lower than 4.0 percent in the 1998–99 school year: Connecticut, Iowa, Maine, Massachusetts, New Jersey, North Dakota, Ohio, Pennsylvania, and Wisconsin.

Because of the differing sizes of states, the numbers of dropouts varied greatly among reporting states. In the 1999–2000 school year, while Texas had the greatest number of dropouts (54,390) among reporting states, it did not have the highest dropout rate. On the other hand, North Dakota had the smallest number of dropouts (1,003) and also had the third lowest dropout rate (2.7 percent) of reporting states.

High School Completers

Diploma recipients

These are individuals who, in a given year, are awarded a high school diploma or a diploma that recognizes some higher level of academic achievement. They can be thought of as students who meet or exceed the coursework and performance standards for high school completion established by the state or other relevant authorities.

Other high school completers

These individuals receive a certificate of attendance or some other credential in lieu of a diploma. Students awarded this credential typically meet requirements that differ from those for a high school diploma. Some states do not issue an "other high school completion" type of certificate, but award all students who complete school a diploma regardless of what academic requirements the students have met. In order to make data as comparable as possible across states, this report includes both regular and other diploma recipients in its high school 4-year completion rate.

Exclusion of high school equivalency recipients

High school equivalency recipients are awarded a credential certifying that they have met state or district requirements for high school completion by passing an examination or completing some other performance requirement. The equivalency certificate is usually awarded on the basis of the GED test. The CCD asks states to report high school equivalency recipients who are in roughly the same cohort as the regular graduating class, that is, 19 years of age or younger. Although students who receive their GED from a state- or district-recognized program by October 1 are not counted as dropouts in the dropout rate calculation, there are two reasons that GED recipients are not included in the count of high school completers (i.e., they are counted as dropouts) in the 4-year completion rate. First, the count of high school equivalency recipients is only reported at the state level, while the other data collected and used in the 4-year completion rate are reported at the school district level. Second, not all states report the total number of GED recipients.

Table 1.—Dropout numbers and rates in grades 9–12, by state: School years 1999–2000 and 1998–99

	1999–2000			1998–99		
State	Total 9th- through 12th-graders[1]	Dropouts	Rate	Total 9th- through 12th-graders[1]	Dropouts	Rate
Alabama[2]	199,574	8,928	4.5	205,459	9,118	4.4
Alaska[2]	38,790	2,134	5.5	38,382	2,044	5.3
Arizona	—	—	—	224,813	18,881	8.4
Arkansas	133,274	7,637	5.7	132,988	7,918	6.0
California	—	—	—	—	—	—
Colorado	—	—	—	—	—	—
Connecticut	148,263	4,541	3.1	143,823	4,715	3.3
Delaware	32,447	1,337	4.1	32,803	1,361	4.1
District of Columbia	15,296	1,096	7.2	14,684	1,197	8.2
Florida	—	—	—	—	—	—
Georgia	378,486	27,175	7.2	371,642	27,358	7.4
Hawaii	—	—	—	—	—	—
Idaho	—	—	—	74,074	5,082	6.9
Illinois[2]	554,327	34,095	6.2	549,515	35,908	6.5
Indiana	—	—	—	—	—	—
Iowa	158,477	4,002	2.5	158,820	3,997	2.5
Kansas	—	—	—	—	—	—
Kentucky	187,553	9,445	5.0	191,352	9,317	4.9
Louisiana	207,331	18,999	9.2	208,895	20,923	10.0
Maine	60,595	1,977	3.3	59,790	1,975	3.3
Maryland[2]	238,113	9,772	4.1	233,541	10,208	4.4
Massachusetts	265,949	10,874	4.1	256,726	9,189	3.6
Michigan	—	—	—	—	—	—
Minnesota	272,869	11,790	4.3	268,966	12,011	4.5
Mississippi	133,095	6,571	4.9	133,837	6,961	5.2
Missouri	269,188	11,896	4.4	264,984	12,633	4.8
Montana	50,031	2,089	4.2	49,913	2,230	4.5
Nebraska	90,792	3,605	4.0	90,975	3,844	4.2
Nevada	85,960	5,348	6.2	81,945	6,493	7.9
New Hampshire	—	—	—	—	—	—
New Jersey[2]	331,468	10,267	3.1	327,784	10,188	3.1
New Mexico	95,903	5,772	6.0	96,268	6,775	7.0
New York	—	—	—	—	—	—
North Carolina	—	—	—	—	—	—
North Dakota	37,740	1,003	2.7	38,001	921	2.4
Ohio	590,504	29,386	5.0	590,608	22,821	3.9
Oklahoma[2]	180,203	9,737	5.4	180,235	9,433	5.2
Oregon[3]	166,548	9,709	5.8	162,100	10,559	6.5
Pennsylvania	543,803	21,605	4.0	538,452	20,410	3.8
Rhode Island	43,617	2,096	4.8	43,019	1,931	4.5
South Carolina	—	—	—	—	—	—
South Dakota[2]	41,439	1,442	3.5	41,633	1,883	4.5
Tennessee[2]	253,913	10,668	4.2	244,929	11,340	4.6
Texas	1,088,428	54,390	5.0	—	—	—
Utah	149,816	6,167	4.1	151,366	7,152	4.7
Vermont[2]	31,984	1,491	4.7	30,656	1,403	4.6
Virginia[2]	320,920	12,381	3.9	316,569	14,153	4.5
Washington	—	—	—	—	—	—
West Virginia	88,320	3,708	4.2	91,394	4,438	4.9
Wisconsin	249,028	6,441	2.6	253,888	6,555	2.6
Wyoming	30,200	1,715	5.7	31,109	1,608	5.2
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs						
DoDDS: DoDs Overseas	—	—	—	—	—	—
DDESS: DoDs Domestic	—	—	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—
American Samoa	3,545	45	1.3	3,531	70	2.0
Guam	8,800	1,077	12.2	8,364	1,254	15.0
Northern Marianas	2,098	156	7.4	2,078	239	11.5
Puerto Rico[2]	165,027	1,519	0.9	161,321	1,892	1.2
Virgin Islands	5,994	409	6.8	5,750	421	7.3

—Not available.

[1] Ungraded students are prorated into the 9th- through 12th-grade total for dropout rate calculation purposes. For those states that did not report dropouts, no prorated 9th- through 12th-grade enrollment was calculated.

[2] This state reported on an alternative July through June cycle rather than the specified October through September cycle.

[3] Oregon dropout counts erroneously included students who were completers; these students account for approximately 0.2 percent of Oregon's dropout counts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), *Data Files: Local Education Agency (School District) Universe Dropout Data,* 1998–99 and 1999–2000 (NCES 2002–310 and 2002–384).

High school 4-year completion rate

Put simply, this rate asks, "Of those students who have left school, what proportion have done so as completers?" The rate incorporates 4 years' worth of data and thus is an estimated cohort rate. It is calculated by dividing the number of high school completers by the sum of dropouts for grades 9 through 12, respectively, in consecutive years, plus the number of completers. If a hypothetical graduating class began as 9th-graders in year 1, this 4-year completion rate would look like

$$\frac{\text{high school completers year 4}}{\text{dropouts (grade 9 year 1 + grade 10 year 2 + grade 11 year 3 + grade 12 year 4) + high school completers year 4}}$$

For a more detailed description of the development and limitations of the completion rate, see *Public High School Dropouts and Completers From the Common Core of Data: School Years 1991–92 Through 1997–98* (Young and Hoffman 2002).

High school completer results

As with states' numbers of high school dropouts, states' numbers of high school completers varied widely, partially because of the sizes of states' public school populations. As might be expected, in 1999–2000, the state with the largest public school population, California, had the most high school completers (309,866), and the District of Columbia, with the smallest public school population, had the fewest high school completers (2,916) (table 2). Seven states had more than 100,000 high school completers: California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas.

In the 1999–2000 school year, the 4 years of dropout data needed to calculate a high school 4-year completion rate were available for 33 states. The high school 4-year completion rates ranged from a high of 89.3 percent in Wisconsin to a low of 62.6 percent in Louisiana for those states with data. (This rate includes other high school completers but does not reflect those receiving a GED-based equivalency credential.) In 1999–2000, eight of the reporting states had 4-year completion rates above 85 percent: Connecticut, Iowa, Maine, Massachusetts, Nebraska, New Jersey, North Dakota, and Wisconsin. Four states had 4-year completion rates below 75 percent: Georgia, Louisiana, Nevada, and New Mexico.

The majority of high school completion credentials are in the form of a diploma. There were 32 reporting states with data available to calculate a 1999–2000 high school 4-year completion rate that either reported other high school completer data (e.g., certificates of completion) or did not award any type of other high school completer credentials. Other high school completers made up only 1.5 percent of all high school completers in these 32 reporting states (derived from table 2). Twenty-two of these states awarded other high school completion credentials (the other 10 states did not award these credentials) and had data necessary to calculate a 1999–2000 4-year completion rate for other high school completers (e.g., recipients of certificates of completion). In 5 of these 22 states—Alabama, Arkansas, Georgia, Mississippi, and Tennessee—the percentage of all students who completed by means of another high school completion credential was 5 percent or more.

Technical Notes

How does the CCD dropout rate compare with other dropout rates?

NCES publishes three types of dropout rates:

> **Event rates** describe the proportion of students who leave school each year without completing a high school program. This annual measure of recent dropout occurrences provides important information about how effective educators are in keeping students enrolled in school. Data used to compute event rates are collected through the CCD and the Current Population Survey (CPS).
>
> **Status rates** provide cumulative data on dropouts among all young adults within a specified age range. Status rates are higher than event rates because they include all dropouts regardless of when they last attended school. Since status rates reveal the extent of the dropout problem in the population, these rates also can be used to estimate the need for further education and training designed to help dropouts participate fully in the economy and life of the nation. Data used to calculate status rates for young adults ages 16 through 24 are collected through the CPS.
>
> **Cohort rates** measure what happens to a group of students over a period of time. These rates are based on repeated measures of a cohort of students with shared experiences and reveal how many students starting in a specific grade drop out over time. Typically, data from longitudinal studies provide more background and contextual information on the students who drop out than is available through the CPS or CCD data collections. Data used to calculate cohort rates were collected through the National Education Longitudinal Study of 1988 (NELS:88) and are included in subsequent longitudinal files.

Table 2.—Four-year high school completion rates, by state: School years 1999–2000 and 1998–99

	1999–2000						1998–99					
	Number of completers[1]			4-year completion rate[2]			Number of completers[1]			4-year completion rate[2]		
State	Total	Total diploma	Other completers	Total	Total diploma	Other completers	Total	Total diploma	Other completers	Total	Total diploma	Other completers
United States	2,586,195[3,4]	2,546,701	39,494[3,4]	—	—	—	2,526,890[4]	2,487,200	39,690[4]	—	—	—
Alabama	40,354	37,819	2,535	79.8	74.8	5.0	40,624	36,991	3,633	78.9	71.8	7.1
Alaska	6,683	6,630	53	77.3	76.7	0.6	6,860	6,810	50	78.9	78.3	0.6
Arizona[5]	38,679	38,304	375	—	—	—	36,085	35,728	357	63.2	62.6	0.6
Arkansas	29,511	27,335	2,176	80.1	74.2	5.9	29,072	26,896	2,176	81.0	74.9	6.1
California	309,866	309,866	(†)	—	—	(†)	299,277	299,277	(†)	—	—	(†)
Colorado	39,064	38,924	140	—	—	—	37,764	36,958	806	—	—	—
Connecticut	31,470	31,437	33	86.5	86.4	0.1	28,319	28,278	41	83.7	83.6	0.1
Delaware	6,185	6,107	78	80.8	79.8	1.0	6,577	6,484	93	82.9	81.7	1.2
District of Columbia	2,916	2,695	221	—	—	—	2,805	2,675	130	—	—	—
Florida	110,492	106,498	3,994	—	—	—	105,815	102,414	3,401	—	—	—
Georgia	67,897	62,563	5,334	70.7	65.1	5.6	65,467	59,227	6,240	68.9	62.3	6.6
Hawaii	10,666	10,437	229	—	—	—	10,418	9,714	704	—	—	—
Idaho	16,207	16,170	37	—	—	—	15,747	15,716	31	74.7	74.5	0.1
Illinois	111,796	111,796	(†)	75.4	75.4	(†)	112,498	112,498	(†)	75.8	75.8	(†)
Indiana	59,821	58,941	880	—	—	—	59,472	58,962	510	—	—	—
Iowa	34,050	33,926	124	88.8	88.5	0.3	34,446	34,378	68	88.3	88.1	0.2
Kansas	29,102	29,102	(†)	—	—	(†)	28,543	28,543	(†)	—	—	(†)
Kentucky	36,775	36,775	—	—	—	—	37,273	37,127	146	—	—	—
Louisiana	39,390	38,430	960	62.6	61.1	1.5	39,122	37,802	1,320	61.5	59.4	2.1
Maine	12,015	11,999	16	86.2	86.1	0.1	11,706	11,691	15	86.4	86.3	0.1
Maryland	48,310	47,849	461	81.9	81.1	0.8	46,821	46,214	607	81.6	80.6	1.1
Massachusetts	52,877	52,877	(†)	85.5	85.5	(†)	51,465	51,465	(†)	86.0	86.0	(†)
Michigan[3]	90,445	89,986	459	—	—	—	94,451	94,125	326	—	—	—
Minnesota	57,363	57,363	(†)	81.2	81.2	(†)	56,964	56,964	(†)	81.2	81.2	(†)
Mississippi	26,324	24,232	2,092	76.4	70.4	6.1	26,284	24,198	2,086	76.4	70.3	6.1
Missouri	52,895	52,796	99	79.6	79.4	0.1	52,448	52,354	94	77.8	77.7	0.1
Montana	10,902	10,902	(†)	82.4	82.4	(†)	10,925	10,925	(†)	82.0	82.0	(†)
Nebraska	20,218	20,046	172	85.1	84.3	0.7	20,864	20,488	376	84.5	82.9	1.5
Nevada	15,390	14,551	839	70.2	66.4	3.8	14,495	13,892	603	66.9	64.1	2.8
New Hampshire	11,797	11,797	—	—	—	—	11,251	11,251	—	—	—	—
New Jersey	74,586	74,586	(†)	86.7	86.7	(†)	67,410	67,410	(†)	85.2	85.2	(†)
New Mexico	18,551	18,291	260	73.0	72.0	1.0	17,547	17,317	230	70.6	69.6	0.9
New York	147,284	141,731	5,553	—	—	—	143,461	139,366	4,095	—	—	—
North Carolina	62,844	62,140	704	—	—	—	60,819	60,081	738	—	—	—
North Dakota	8,606	8,606	(†)	88.9	88.9	(†)	8,388	8,388	(†)	89.7	89.7	(†)
Ohio	112,515	112,515	(†)	80.4	80.4	(†)	108,183	108,183	(†)	80.5	80.5	(†)
Oklahoma	37,629	37,629	(†)	78.8	78.8	(†)	36,496	36,496	(†)	78.7	78.7	(†)
Oregon	33,441	30,583	2,858	—	—	—	30,869	27,835	3,034	—	—	—
Pennsylvania	113,959	113,959	(†)	84.1	84.1	(†)	112,714	112,714	(†)	84.0	84.0	(†)
Rhode Island	8,495	8,477	18	80.8	80.6	0.2	8,193	8,179	14	81.8	81.7	0.1
South Carolina	33,918	31,617	2,301	—	—	—	33,770	31,495	2,275	—	—	—
South Dakota	9,278	9,278	(†)	83.6	83.6	(†)	8,757	8,757	(†)	81.7	81.7	(†)
Tennessee	45,825	41,568	4,257	78.8	71.5	7.3	44,597	40,823	3,774	78.5	71.8	6.6
Texas	212,925	212,925	(†)	—	—	(†)	203,367	203,367	(†)	—	—	(†)
Utah	32,822	32,510	312	81.4	80.6	0.8	31,782	31,587	195	80.1	79.6	0.5
Vermont	6,698	6,675	23	81.4	81.2	0.3	6,438	6,418	20	82.1	81.9	0.3
Virginia	67,458	65,596	1,862	81.8	79.5	2.3	65,345	63,875	1,470	81.5	79.7	1.8
Washington	55,418	55,418	—	—	—	—	57,908	57,908	—	—	—	—
West Virginia	19,449	19,437	12	82.6	82.5	0.1	19,908	19,889	19	83.2	83.2	0.1
Wisconsin	58,545	58,545	—	89.3	89.3	—	58,312	58,312	—	89.7	89.7	—
Wyoming	6,489	6,462	27	77.6	77.3	0.3	6,365	6,352	13	77.2	77.0	0.2

See footnotes on second page of this table.

Table 2.—Four-year high school completion rates, by state: School years 1999–2000 and 1998–99—Continued

	1999–2000						1998–99					
	Number of completers[1]			4-year completion rate[2]			Number of completers[1]			4-year completion rate[2]		
State	Total	Total diploma	Other completers	Total	Total diploma	Other completers	Total	Total diploma	Other completers	Total	Total diploma	Other completers
Outlying areas, DoD Dependents Schools, and Bureau of Indian Affairs												
DoDDS: DoDs Overseas	2,642	2,642	—	—	—	—	2,403	2,403	—	—	—	—
DDESS: DoDs Domestic	560	560	—	—	—	—	570	570	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—	—	—	—	—	—	—
American Samoa	701	698	3	91.0	90.6	0.4	741	740	1	94.4	94.3	0.1
Guam	1,406	1,406	—	52.7	52.7	—	1,326	1,326	—	53.4	53.4	—
Northern Marianas	360	360	—	72.7	72.7	—	341	341	—	67.7	67.7	—
Puerto Rico	30,856	30,856	—	93.4	93.4	—	30,479	30,479	—	92.3	92.3	—
Virgin Islands	1,060	1,060	—	78.8	78.8	—	951	951	—	83.9	83.9	—

—Not available.

†Not applicable; state does not award this type of credential.

[1] Includes regular and other diplomas as well as other completers, but does not include high school equivalency recipients.

[2] The 4-year completion rate is calculated by dividing the number of high school completers in a given year by the number of high school completers in that year and dropouts over a 4-year period (see report text for further description).

[3] Michigan completer counts in 1999–2000 do not include the following districts: Detroit, Lansing, and Litchfield. These three districts accounted for less than 8 percent of all Michigan completers in the 1998–99 school year.

[4] Other completers data are missing the following states: Kentucky (1999–2000 only), New Hampshire, Washington, and Wisconsin.

[5] Arizona 1999–2000 completers data are obtained from the "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), *Data Files: Local Education Agency (School District) Universe Dropout Data*, 1998–99 and 1999–2000 (NCES 2002-310 and 2002-384); "Local Education Agency Universe Survey," 1999–2000 and 2000–01; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1999–2000 and 2000–01.

Conceptually, the dropout collection through the CCD is designed to be consistent with the current CPS procedures. However, there are operational differences in dropout collection procedures between the two data sets. First, the CCD represents a state's public school dropout counts; in other words, the dropout rate represents the number of public school students who have dropped out divided by the total number of public school students enrolled in the state. This differs from the CPS dropout counts in a few ways. The CPS counts include students who were enrolled in either public or private schools. Second, the CPS is a count of young adults who live in the state, not necessarily those who went to school in that state. The third difference between CPS and CCD dropout collection procedures is that the CCD collects data on dropouts from grades 7 through 12 and reports event rates based on grades 9 through 12 versus only grades 10 through 12 in the CPS. Fourth, the CCD collection is based on administrative records rather than a household survey, as in the CPS. One other difference is that, in contrast to the CPS, the CCD collection counts those students who leave public school to enroll in GED programs (outside the public education system) as dropouts, but they are not counted as dropouts in the estimates NCES publishes based on CPS data. Finally, the CPS is not traditionally used to report state-level dropout estimates.

How does the CCD 4-year completion rate differ from the CPS completion rate?

The CCD and CPS are different types of data collections that lead to different completion rates. The CCD is an annual administrative records data collection from SEAs of data about schools, districts, and states. The CPS is a monthly household survey of 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics to provide information about employment, unemployment, and other characteristics of the civilian noninstitutionalized population.

Many of the differences between the CCD and CPS dropout collections are evident in their respective data collection procedures. There are additional distinctions, however. The CCD is more of an accountability measure for states, while the CPS measure defines a population. The main difference is that the CCD 4-year completion rate is a leaver rate: of those who left school, how many completed. The CPS measures an age group of the population (in NCES' case 18- to 24-year-olds) and asks if they graduated from school.

Thus, the CCD estimates a cohort completion rate for those who have left school, while the CPS provides a status rate based on the total young adult population.

National totals

Because not all states report dropouts using the CCD definition, the CCD cannot provide national totals for dropout or completion rates. It is also not advisable to create "reporting state" totals, because the bias introduced by those states that are missing is unknown. When all states are able to report to NCES using the CCD dropout definition, a national total of dropouts and completers can and will be reported.

References

Kaufman, P., Alt, M.N., and Chapman, C.D. (2001). *Dropout Rates in the United States: 2000* (NCES 2002–114). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Young, B.A., and Hoffman, L. (2002). *Public High School Dropouts and Completers From the Common Core of Data: School Years 1991–92 Through 1997–98* (NCES 2002–317). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data sources: The NCES Common Core of Data (CCD): *Data Files: Local Education Agency (School District) Universe Dropout Data*, 1998–99 and 1999–2000; "Local Education Agency Universe Survey," 1999–2000 and 2000–01; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1999–2000 and 2000–01.

Author affiliation: B.A. Young, NCES.

For questions about content, contact Beth A. Young (beth.young@ed.gov).

To obtain this report (NCES 2002–382), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2000–01

Beth Aronstamm Young

This article was originally published as the Discussion in the Statistical Analysis Report of the same name. The universe data are from the NCES Common Core of Data (CCD).

Introduction

This publication provides basic descriptive information about the 100 largest school districts (ranked by student membership) in the United States and jurisdictions (Bureau of Indian Affairs, Department of Defense schools, and five outlying areas: American Samoa, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands). When discussing characteristics, the term "United States and jurisdictions" is used to refer to all 50 states, the District of Columbia, Bureau of Indian Affairs, Department of Defense schools, and five outlying areas. This is different from most National Center for Education Statistics (NCES) reports, which include only the 50 states and the District of Columbia in national totals.

Almost one in every four public school students in this nation is served by one of these 100 districts (table A). They are distinguished from the average school district by characteristics in addition to sheer size of membership, such as average and median school size, pupil/teacher ratios, number of high school graduates, number of pupils receiving special education services, and minority enrollment as a proportion of total enrollment.

The tables in this publication provide information about the characteristics cited above. To establish a context for the information on the 100 largest districts, national school district data are also included, as are basic data on the 500 largest school districts.

Overview of the 100 Largest Districts

In the 2000–01 school year, there were 16,992 public school districts, 95,366 schools, and 48.1 million students in public education in the United States and jurisdictions. There were just over 3.0 million full-time-equivalent teachers in the 2000–01 school year and more than 2.6 million high school completers in the 1999–2000 school year. The 100 largest school districts make up less than 1 percent of all public school districts but serve 23 percent of the total number of public elementary and secondary school students (table A). The 100 largest school districts represent 16 percent of schools and employ 21 percent of all teachers. The 500 largest districts make up 3 percent of all school districts, represent 32 percent of schools, and serve 20.6 million students, or 43 percent of the total public elementary and secondary school student population in the United States and jurisdictions (table A).

Table A.—Selected statistics for the United States and jurisdictions, the 100 largest, and the 500 largest school districts: School year 2000–01

Data item	National total[1]	100 largest districts[1]		500 largest districts[1]	
		Total	Percentage of national total	Total	Percentage of national total
Districts	16,992	100	0.6	500	2.9
Schools	95,366	15,615	16.4	30,205	31.7
Students	48,067,834	11,050,902	23.0	20,631,006	42.9
Teachers (full-time-equivalent)	3,002,947	641,333	21.4	1,195,445	39.8
High school completers (1999–2000)[2]	2,625,325	498,252	19.0	985,990	37.6
Pupil/teacher ratio	16.0	17.2	(†)	17.3	(†)
Average school size	504.0	707.7	(†)	683.0	(†)
High school completers[2] as percentage of all students	5.5	4.5	(†)	4.8	(†)

†Not applicable.

[1] The universe for this table includes outlying areas, Bureau of Indian Affairs, and Department of Defense schools. The 500 largest school districts include 27 school districts that are some other configuration besides PK- or K-12, although all of the 100 largest school districts are PK- or K-12.

[2] Includes high school diploma recipients as well as other high school completers (e.g., certificate of attendance recipients).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2000–01, and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2000–01.

All of the 100 largest school districts have at least 45,000 students, and 25 of these school districts have over 100,000 students. The largest school district is the New York City Public Schools, with 1,066,516 students enrolled in 1,213 schools. The second largest school district is Los Angeles Unified, with 721,346 students in 659 schools (table B). The enrollment in each of these two largest school districts is greater than the enrollment in each of 26 individual states and the District of Columbia, each of the 5 outlying areas, the Bureau of Indian Affairs schools, and the Department of Defense schools.[1]

Where Are the 100 Largest School Districts?

There are 33 states and jurisdictions that have at least one of the 100 largest school districts (table B). Texas has 15 districts among the 100 largest, Florida has 13, and California has 12. Several other states have more than one district represented in the 100 largest: Georgia has 6; Maryland has 5; Louisiana, North Carolina, Tennessee, Utah, and Virginia each have 4; Ohio has 3; and Arizona, Colorado, Nevada, and New York each have 2. The following states and jurisdictions each have one school district among the 100 largest: Alabama, Alaska, the District of Columbia, Hawaii, Illinois, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Mexico, Oregon, Pennsylvania, Puerto Rico, South Carolina, Washington, and Wisconsin. (The District of Columbia, Hawaii, and Puerto Rico each have only one school district for their entire jurisdiction.)

As expected, these 100 largest districts tend to be in cities and counties with large populations, with administrative offices typically located in large cities and their environs. Many of the districts are in states where the school districts have the same boundaries as counties. However, caution should be used when interpreting the areas that these school districts cover. School district boundaries are not necessarily the same as county, city, or town boundaries. Over 70 percent of these districts are located in coastal and gulf coast states.

How Do These Districts Compare With the Average School District?

General characteristics

By definition, the 100 largest school districts are large, and when compared to the membership distribution of all school districts, they are considerably larger than most. In the 2000–01 school year, 74 percent of all regular school districts[2] had fewer than 2,500 students while all of the 100 largest school districts had at least 45,000 students (tables B and C). Although 13 percent of regular school districts had 5,000 or more students, 67 percent of students (or 2 out of 3) were served by these districts (table C).

The average school district in the United States and jurisdictions has 5.6 schools compared to the 100 largest school districts, which average 156.2 schools per district (derived from table A). Two of the largest school districts, New York City Public Schools and the Puerto Rico Department of Education, each have over 1,200 schools (table B). The 100 largest school districts, on average, serve considerably more students (110,509 compared to 2,829) and employ more teachers (6,413 compared to 177) per district than the average school district in the nation (derived from table A).

School characteristics

The 100 largest school districts have more students per school than the average school district, 708 compared to 504 (table A). In fact, 11 of the 100 largest school districts have an average regular school[3] size of over 1,000 students. In addition to larger school sizes, the 100 largest school districts also have a higher mean pupil/teacher ratio, 17.2 to 1 compared to 16.0 to 1 for the average school district (table A). Across the 100 largest districts, Jordon School District, Utah, has the largest median[4] pupil/teacher ratio at 24.7 to 1 and Minneapolis, Minnesota, has the smallest at 12.5 to 1.

High school completers. The number of high school completers (diploma recipients and other high school completers) as a percentage of all students is lower in the 100 largest school districts than in the average school district: 4.5 percent of students are graduates in the 100 largest school districts compared to 5.5 percent for the average school district (table A).

---

[1] State enrollment can be found in *Public School Student, Staff, and Graduate Counts by State: School Year 2000–01* (Young 2002).

[2] A regular school district is an agency responsible for providing free public education for school-age children residing within its jurisdiction. This category excludes local supervisory unions that provide management services for a group of associated school districts; regional education service agencies that typically provide school districts with research, testing, and data processing services; state and federally operated school districts; and other agencies that do not fall into these groupings (e.g., charter schools reported as "dummy" agencies).

[3] A regular school is a public elementary/secondary school that does not focus primarily on vocational, special, or alternative education.

[4] If all the pupil/teacher ratios were listed in order, the midpoint on the list would be the median.

BEST COPY AVAILABLE

Table B.—Selected statistics for the 100 largest school districts in the United States and jurisdictions: School year 2000–01

Name of reporting district	City	State	County	Number of students[1]	Number of full-time-equivalent (FTE) teachers	Number of 1999–2000 completers[2]	Number of schools
Total				11,050,902	641,333	498,252[3]	15,615
New York City Public Schools	Brooklyn	NY	Kings	1,066,516	65,242	40,827	1,213
Los Angeles Unified	Los Angeles	CA	Los Angeles	721,346	35,150	27,439	659
Puerto Rico Department of Education	San Juan	PR	San Juan	612,725	37,620	30,856	1,543
City of Chicago School District	Chicago	IL	Cook	435,261	23,935	14,875	602
Dade County School District	Miami	FL	Dade	368,625	18,608	15,750	356
Broward County School District	Fort Lauderdale	FL	Broward	251,129	11,822	10,651	243
Clark County School District	Las Vegas	NV	Clark	231,655	11,769	9,630	259
Houston Independent School District	Houston	TX	Harris	208,462	11,197	7,735	289
Philadelphia City School District	Philadelphia	PA	Philadelphia	201,190	11,266	9,873	261
Hawaii Department of Education	Honolulu	HI	Honolulu	184,360	10,927	10,666	261
Hillsborough County School District	Tampa	FL	Hillsborough	164,311	10,031	7,546	210
Detroit City School District	Detroit	MI	Wayne	162,194	8,557	—	263
Dallas Independent School District	Dallas	TX	Dallas	161,548	10,637	5,837	221
Fairfax County Public Schools	Fairfax	VA	Fairfax	156,412	11,574	10,187	195
Palm Beach County School District	West Palm Beach	FL	Palm Beach	153,871	8,084	6,986	177
Orange County School District	Orlando	FL	Orange	150,681	8,410	6,700	174
San Diego City Unified	San Diego	CA	San Diego	141,804	7,403	6,449	180
Montgomery County Public Schools	Rockville	MD	Montgomery	134,180	8,561	7,748	192
Prince George's County Public Schools	Upper Marlboro	MD	Prince George's	133,723	7,648	7,435	194
Duval County School District	Jacksonville	FL	Duval	125,846	6,445	4,777	179
Memphis City School District	Memphis	TN	Shelby	113,730	7,486	4,341	164
Pinellas County School District	Largo	FL	Pinellas	113,027	6,389	5,111	164
Gwinnett County School District	Lawrenceville	GA	Gwinnett	110,075	7,187	5,392	85
Baltimore County Public Schools	Towson	MD	Baltimore	106,898	6,834	6,545	169
Charlotte-Mecklenburg Schools	Charlotte	NC	Mecklenburg	103,336	6,562	4,764	135
Baltimore City Public School System	Baltimore	MD	Baltimore City	99,859	6,057	3,742	183
Wake County Schools	Raleigh	NC	Wake	98,950	6,389	4,825	120
Milwaukee School District	Milwaukee	WI	Milwaukee	97,985	6,039	3,279	206
Jefferson (KY) County	Louisville	KY	Jefferson	96,860	3,248	4,851	174
De Kalb County School District	Decatur	GA	De Kalb	95,958	5,818	4,637	123
Cobb County School District	Marietta	GA	Cobb	95,781	6,409	5,323	94
Long Beach Unified	Long Beach	CA	Los Angeles	93,694	4,466	4,248	89
Jefferson (CO) County	Golden	CO	Jefferson	87,703	4,548	5,731	161
Albuquerque Public Schools	Albuquerque	NM	Bernalillo	85,276	5,478	4,745	131
Fort Worth Independent School District	Fort Worth	TX	Tarrant	79,661	4,746	3,291	141
Polk County School District	Bartow	FL	Polk	79,477	4,779	3,617	137
Fresno Unified	Fresno	CA	Fresno	79,007	3,867	3,686	99
Austin Independent School District	Austin	TX	Travis	77,816	5,160	3,496	109
Orleans Parish School Board	New Orleans	LA	Orleans	77,610	4,629	3,813	128
Virginia Beach City Public Schools	Virginia Beach	VA	Virginia Beach City	76,586	5,176	4,345	84
Cleveland City School District	Cleveland	OH	Cuyahoga	75,684	5,625	5,784	125
Anne Arundel County Public Schools	Annapolis	MD	Anne Arundel	74,491	4,325	4,324	119
Mesa Unified District	Mesa	AZ	Maricopa	73,587	3,613	—	86
Jordan School District	Sandy	UT	Salt Lake	73,158	3,093	5,509	81
Granite School District	Salt Lake City	UT	Salt Lake	71,328	3,369	4,666	98
Denver County	Denver	CO	Denver	70,847	4,178	2,571	129
Brevard County School District	Viera	FL	Brevard	70,597	3,785	3,524	108
District of Columbia Public Schools	Washington	DC	District of Columbia	68,925	5,044	2,916	165
Fulton County School District	Atlanta	GA	Fulton	68,583	4,415	3,245	71
Nashville-Davidson County School District	Nashville	TN	Davidson	67,669	4,820	2,857	125
Mobile County School District	Mobile	AL	Mobile	64,976	4,102	3,542	100
Columbus City School District	Columbus	OH	Franklin	64,511	4,090	2,266	146
Northside Independent School District	San Antonio	TX	Bexar	63,739	4,269	3,669	84
Cypress-Fairbanks Indep. School District	Houston	TX	Harris	63,497	4,103	3,477	54
Guilford County Schools	Greensboro	NC	Guilford	63,417	3,957	3,055	98
Boston School District	Boston	MA	Suffolk	63,024	5,519	3,059	131
El Paso Independent School District	El Paso	TX	El Paso	62,325	4,078	3,247	86
Tucson Unified District	Tucson	AZ	Pima	61,869	3,446	—	123
Volusia County School District	Deland	FL	Volusia	61,517	3,745	2,898	92
Seminole County School District	Sanford	FL	Seminole	60,869	3,356	3,076	68

See footnotes on second page of this table.

Table B.—Selected statistics for the 100 largest school districts in the United States and jurisdictions: School year 2000–01—Continued

Name of reporting district	City	State	County	Number of students[1]	Number of full-time-equivalent (FTE) teachers	Number of 1999–2000 completers[2]	Number of schools
Santa Ana Unified	Santa Ana	CA	Orange	60,643	2,837	2,145	53
San Francisco Unified	San Francisco	CA	San Francisco	59,979	3,261	3,676	116
Greenville County School District	Greenville	SC	Greenville	59,875	3,763	3,238	93
Davis School District	Farmington	UT	Davis	59,578	2,642	4,567	83
Arlington Independent School District	Arlington	TX	Tarrant	58,866	3,884	2,746	71
Lee County School District	Fort Myers	FL	Lee	58,401	3,066	2,760	75
Atlanta City School District	Atlanta	GA	Fulton	58,230	3,950	2,056	98
San Antonio Independent School District	San Antonio	TX	Bexar	57,273	3,560	2,619	104
Washoe County School District	Reno	NV	Washoe	56,268	3,323	2,588	92
Oakland Unified	Oakland	CA	Alameda	54,863	2,834	1,716	96
Prince William County Public Schools	Manassas	VA	Prince William	54,646	3,158	3,044	70
East Baton Rouge Parish School	Baton Rouge	LA	East Baton Rouge	54,246	3,746	2,857	105
Fort Bend Independent School District	Sugar Land	TX	Fort Bend	53,999	3,254	3,391	53
Portland School District	Portland	OR	Multnomah	53,141	3,073	2,881	110
Sacramento City Unified	Sacramento	CA	Sacramento	52,734	2,513	2,395	77
Aldine Independent School District	Houston	TX	Harris	52,520	3,497	2,024	63
San Bernardino City Unified	San Bernardino	CA	San Bernardino	52,031	2,396	1,984	62
Knox County School District	Knoxville	TN	Knox	51,944	3,755	2,861	88
Chesterfield County Public Schools	Chesterfield	VA	Chesterfield	51,212	3,452	3,249	59
Jefferson Parish School Board	Harvey	LA	Jefferson	50,891	3,395	2,535	84
North East Independent School District	San Antonio	TX	Bexar	50,875	3,456	2,893	65
Cumberland County Schools	Fayetteville	NC	Cumberland	50,850	3,047	2,594	81
Garland Independent School District	Garland	TX	Dallas	50,312	3,088	2,500	65
San Juan Unified	Carmichael	CA	Sacramento	50,266	2,435	3,020	86
Pasco County School District	Land O' Lakes	FL	Pasco	49,704	2,799	2,057	61
Anchorage School District	Anchorage	AK	Anchorage	49,526	2,738	2,334	99
Minneapolis	Minneapolis	MN	Hennepin	48,834	3,314	1,784	141
Garden Grove Unified	Garden Grove	CA	Orange	48,742	2,098	2,574	65
Wichita	Wichita	KS	Sedgwick	48,228	3,003	2,148	92
Elk Grove Unified	Elk Grove	CA	Sacramento	47,736	2,290	2,405	53
Seattle	Seattle	WA	King	47,575	2,550	2,482	119
Plano Independent School District	Plano	TX	Collin	47,161	3,375	2,571	59
Alpine School District	American Fork	UT	Utah	47,117	2,015	2,906	58
Shelby County School District	Memphis	TN	Shelby	46,972	2,608	2,633	46
Clayton County	Jonesboro	GA	Clayton	46,930	2,662	1,741	48
Cincinnati City School District	Cincinnati	OH	Hamilton	46,562	2,923	1,273	77
Ysleta Independent School District	El Paso	TX	El Paso	46,394	2,979	3,052	60
Buffalo City School District	Buffalo	NY	Erie	45,721	3,471	1,857	76
Omaha Public Schools	Omaha	NE	Douglas	45,197	3,023	2,335	82
Caddo Parish School Board	Shreveport	LA	Caddo	45,119	3,023	2,327	74

—Not available.

[1] Count of students receiving educational services from school district may differ somewhat from the counts in tables 3 and 5 of the complete report, which reflect the count of students from the schools aggregated up to the school district.

[2] Includes high school diploma recipients as well as other high school completers (e.g., certificate of attendance recipients).

[3] Total is missing the Detroit City School District, Mesa Unified District, and Tucson Unified District graduate counts.

NOTE: The universe for this table includes outlying areas, Bureau of Indian Affairs, and Department of Defense schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "Local Education Agency Universe Survey," 2000–01. (Originally published as table 1 on p. 12 of the complete report from which this article is excerpted.)

Table C.—Number and percentage of districts and students by district membership size for regular public elementary and secondary school districts in the United States and jurisdictions: School year 2000–01

District size (number of students)	Districts			Students			Cumulative totals	
	Number	Percentage	Cumulative percentage	Number	Percentage	Cumulative percentage	Districts	Students
Total[1]	14,864	100.0	(†)	47,278,715	100.0	(†)	(†)	(†)
100,000 or more	25	0.2	0.2	6,312,905	13.4	13.4	25	6,312,905
25,000 to 99,999	217	1.5	1.6	9,415,964	19.9	33.3	242	15,728,869
10,000 to 24,999	584	3.9	5.6	8,795,953	18.6	51.9	826	24,524,822
7,500 to 9,999	323	2.2	7.7	2,788,149	5.9	57.8	1,149	27,312,971
5,000 to 7,499	713	4.8	12.5	4,356,093	9.2	67.0	1,862	31,669,064
2,500 to 4,999	2,060	13.9	26.4	7,235,089	15.3	82.3	3,922	38,904,153
2,000 to 2,499	806	5.4	31.8	1,800,934	3.8	86.1	4,728	40,705,087
1,500 to 1,999	1,071	7.2	39.0	1,857,358	3.9	90.0	5,799	42,562,445
1,000 to 1,499	1,571	10.6	49.6	1,938,731	4.1	94.1	7,370	44,501,176
800 to 999	805	5.4	55.0	723,656	1.5	95.7	8,175	45,224,832
600 to 799	971	6.5	61.5	677,076	1.4	97.1	9,146	45,901,908
450 to 599	955	6.4	68.0	499,880	1.1	98.1	10,101	46,401,788
300 to 449	1,152	7.8	75.7	427,266	0.9	99.0	11,253	46,829,054
150 to 299	1,471	9.9	85.6	324,387	0.7	99.7	12,724	47,153,441
1 to 149	1,794	12.1	97.7	125,274	0.3	100.0	14,518	47,278,715
Zero[2]	166	1.1	98.8	0	0.0	100.0	14,684	47,278,715
Not available	4	—	98.8	—	—	100.0	14,688	47,278,715
Not applicable	176	1.2	100.0	(†)	(†)	100.0	14,864	47,278,715

—Not available.

†Not applicable.

[1] Not included in this table are local supervisory unions, regional education service agencies, and state and federally operated agencies.

[2] Membership may be 0 in two situations: (1) where the school district does not operate schools but pays tuition for its students in a neighboring district, and (2) where the district provides services for students who are accounted for in some other district(s). The number of regular districts represented in this table differs from table A, which represents **all** districts.

NOTE: The universe for this table includes outlying areas, Bureau of Indian Affairs, and Department of Defense schools. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 2000–01. (Originally published as table B on p. 4 of the complete report from which this article is excerpted.)

School staff. At the national level, 52 percent of staff were teachers[5] compared to 54 percent among the 100 largest districts. In 6 of the 100 largest school districts, 60 percent or more of all staff were teachers (this does not include the City of Chicago, Illinois, or the Greenville County, South Carolina, school districts because the nonteaching staff categories may be underrepresented in these districts). Twenty of the 100 largest districts had 1 percent or more of their staff assigned to district administration.

Title I participation. Ninety of the 100 largest school districts reported data for Title I eligible schools and programs for the 2000–01 school year. The percentage of Title I eligible schools in the 90 districts varied widely, from 8.9 percent in the Charlotte-Mecklenburg School District, North Carolina, to 100 percent in the Philadelphia City School District, Pennsylvania.

Charter schools. There were 327 charter schools administered by the 100 largest school districts in the 2000–01 school year. The largest number of charter schools were in the Los Angeles Unified (36), Puerto Rico (36), and District of Columbia (33) school districts.

Student body

The 100 largest school districts are not homogeneous, and certain student characteristics, such as race/ethnicity, poverty level, and disability status, vary across the districts.

Race/ethnicity. American Indian/Alaska Natives, Asian/Pacific Islanders, Hispanics, and Black, non-Hispanics make up the minority groups when assessing race at the national level. For some districts, these groups have become the majority population of students. The 100 largest districts, with 23 percent of the United States and jurisdictions' public school students, serve 39 percent of the 19.2 million minority public school students (derived from tables A and D).[6] In the 100 largest school districts, 69 percent of students are minority students compared to 40 percent of students in all districts (table D). In fact, approximately one-third (33 percent) of the 96 districts where minority membership was available have over 75 percent minority student membership and 8 of the 10 largest school districts have this minority student membership percentage.

---

[5] Staff data can be found in *Public School Student, Staff, and Graduate Counts by State: School Year 2000–01* (Young 2002). The national staff ratio does not include Bureau of Indian Affairs schools.

Even with the relatively high minority membership in the 100 largest school districts, 34 of the 96 districts report 50 percent or more of their students as White, non-Hispanic. Of these 34 districts, 9 report minority representation of less than 25 percent of their student body. In 18 of the 100 largest districts, half or more of the membership is Black, non-Hispanic. Thirteen districts report that the majority of students are Hispanic; 3 of these are among the 5 largest districts. In Hawaii, which is one district, and San Francisco Unified, California, the majority of students are Asian/Pacific Islander.

For comparison purposes, data from the 2000 Decennial Census are presented in the complete report. These data provide racial and ethnic breakouts of the population less than 18 years old in the district boundaries for the 100 largest school districts.

High school dropouts. For the 1999–2000 school year, 60 of the 100 largest school districts were in states that could report dropouts using the NCES definition of dropouts.[7] The 9th- through 12th-grade dropout rate in those 60 districts ranged from less than 1 to 26 percent. Thirty-five of the districts had a 9th- through 12th-grade dropout rate between 3 and 10 percent.

---

[6] For the 100 largest school districts, the numbers of students in different racial/ethnic categories are reported at the school level and are aggregated up to the school district level. The total number of minority students (19.2 million) is from the "State Nonfiscal Survey of Public Elementary/Secondary Education." See also *Public School Student, Staff, and Graduate Counts by State: School Year 2000–01* (Young 2002).

[7] The CCD defines dropouts as those students who were enrolled in school at some time during the previous school year; were not enrolled at the beginning of the current school year; have not graduated from high school or completed a state- or district-approved educational program; and do not meet any of the following exclusionary conditions: transfer to another public school district, private school, or state- or district-approved education program; temporary absence due to suspension or school-approved education program; or death. For a more detailed description of dropouts and dropout rates, see *Public High School Dropouts and Completers From the Common Core of Data: School Years 1991–92 Through 1997–98* (Young and Hoffman 2002).

Table D.—Percentage of students eligible for free or reduced-price lunch and percentage of minority enrollment in the 100 and 500 largest school districts, and in the United States and jurisdictions: School year 2000–01

	100 largest school districts	500 largest school districts	All school districts
Percentage of schools reporting free and reduced-price lunch	90.1	89.1	86.1
Membership eligible for free or reduced-price lunch of those who reported free and reduced-price lunch	53.4*	47.3*	39.3*
Percentage of schools reporting minority membership	97.3	97.9	98.3
Percentage minority enrollment	68.5	58.4	40.4
American Indian/Alaska Native	0.5	0.7	1.3
Asian/Pacific Islander	6.8	6.2	4.3
Hispanic	31.7	26.7	17.8
Black, non-Hispanic	29.4	24.8	17.0
Percentage White, non-Hispanic enrollment	31.4	41.5	59.6

*These percentages should be interpreted with caution; five states (AZ, CT, IL, TN, and WA), DoD (overseas), DoD (domestic), Bureau of Indian Affairs, and the Virgin Islands did not report free and reduced-price lunch eligibility and are not included in the national total. Also, states may not have reported students eligible for reduced-price meals, and a number of states reported participation instead of eligiblity data, which may not be strictly comparable. Percentages are based on those schools that reported.

NOTE: The universe for this table includes outlying areas, Bureau of Indian Affairs, and Department of Defense schools. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2000–01, and "Local Education Agency Universe Survey," 2000–01. (Originally published as table C on p. 6 of the complete report from which this article is excerpted.)

Free and reduced-price lunch eligibility. The 100 largest school districts have a disproportionate percentage of students eligible for the free and reduced-price lunch program relative to all public school districts. Among schools that reported free and reduced-price lunch eligibility, 53 percent of students in the 100 largest school districts are eligible, compared to 39 percent of students in all districts (table D). Among the 92 of the 100 largest school districts that reported data on free lunch, 43 districts report over 50 percent of their students eligible for the free and reduced-price lunch program.

Students with disabilities. There are over 1 million students with individualized education programs (IEPs) in the 100 largest school districts. They make up 12.5 percent of all students in these districts. In the largest school district, New York City Public Schools, 14 percent, or 149,525 students, are reported to have IEPs. About 2 percent of schools in the 100 largest school districts are special education schools.

Revenues and expenditures for fiscal year 1999[a]

In the 1998–99 school year (fiscal year 1999), $350 billion were collected for public elementary and secondary education in the 50 states, the District of Columbia, and outlying areas; 23 percent ($79 billion) of this revenue was collected by the 100 largest school districts. Of the $79 billion in revenue to the 100 largest school districts, a little less than one-third ($24 billion) was received by the 5 largest school districts (New York City Public Schools, Los Angeles Unified, Puerto Rico Department of Education, City of Chicago School District, and Dade County School District). The revenues from the federal government received by 99 of the 100 largest school districts comprised between 2 and 17 percent of all revenues to the district, the exception being the Puerto Rico Department of Education (28 percent).

The 100 largest school districts spent $68 billion (22 percent) of the $305 billion in current expenditures spent in the 50 states, the District of Columbia, and outlying areas in 1998–99. The two largest school districts, New York City Public Schools and Los Angeles Unified, spent one out of every five dollars expended by the 100 largest school districts. All but 1 of the 100 largest school districts devoted 50 percent or more of their current expenditures to instruction (the District of Columbia spent 45.3 percent). Of the 100 largest school districts, New York City Public Schools spent the greatest proportion, 72 percent, on instruction.

The current expenditures per pupil were $6,508 for all districts in the 50 states and the District of Columbia, slightly higher than the $6,278 in the 100 largest school districts. Of the 100 largest school districts, 20 districts spent more than $7,000 per pupil (with the Boston School District, Massachusetts, spending the most at $11,040 per pupil).

Changes in the 100 largest school districts between 1990 and 2000

While there has been a lot of movement within the 100 largest school districts over time, between the 1990–91 and 2000–01 school years, the 100 largest districts remained very similar. Only 11 of the 100 largest districts in the 2000–01 school year were not in the 100 largest in the 1990–91 school year. Clark County School District, Nevada, was the only district to move into the 10 largest districts between these years (it moved from a rank of 14 in 1990–91 to 7 in 2000–01). Clark County includes the Las Vegas metropolitan area, which was the fastest growing metropolitan area in the country between 1990 and 1998 (U.S. Bureau of the Census 2000).

The number of students in the 100 largest school districts increased by 15 percent between 1990–91 and 2000–01, the number of teachers increased by 24 percent, and the number of schools increased by 10 percent. However, while the numbers of students, teachers, and schools in the 100 largest school districts have increased between these years, the proportion of the national total these numbers comprised was essentially unchanged. For example, the number of students in the 100 largest school districts went from 22.9 percent of the students in all districts in 1990–91 to 23.0 percent in 2000–01 (table E).

---

[a] National revenue and expenditure data were calculated from the state-level "National Public Education Financial Survey" (NPEFS) and can be found in *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1998–99* (Johnson 2001). The percentage distributions are based on school district-level data found on the Census Bureau's "Annual Survey of Government Finances: School Systems" (F-33 survey). Department of Defense and Bureau of Indian Affairs schools are not included in these national totals.

Table E.—Number of students, teachers, and schools in the United States and jurisdictions and the 100 largest school districts: School years 1990–91 and 2000–01

	1990–91[1]			2000–01[1]		
	All districts[2]	100 largest districts	100 largest districts as a percentage of national total	All districts[2]	100 largest districts	100 largest districts as a percentage of national total
Students	42,095,467	9,627,140	22.9	48,067,834	11,050,902	23.0
Teachers (full-time-equivalent)	2,286,589	515,175	22.5	3,002,947	641,333	21.4
Schools	86,277	14,206	16.5	95,366	15,615	16.4

[1] For 2000–01, includes outlying areas, Bureau of Indian Affairs, and Department of Defense schools. In 1990–91, these jurisdictions are not included.

[2] The addition of Bureau of Indian Affairs and Department of Defense schools accounts for 0.3 percent more students, 0.3 percent more teachers, and 0.4 percent more schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1990–91 and 2000–01, and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 and 2000–01. (Originally published as table D on p. 8 of the complete report from which this article is excerpted.)

References

Johnson, F. (2001). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1998–99* (NCES 2001–321). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

U.S. Bureau of the Census. (2000). *Statistical Abstract of the United States: 2000*. U.S. Department of Commerce. Washington, DC: U.S. Government Printing Office.

Young, B. (2002). *Public School Student, Staff, and Graduate Counts by State: School Year 2000–01*(NCES 2002–348). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Young, B., and Hoffman, L. (2002). *Public High School Dropouts and Completers From the Common Core of Data: School Years 1991–92 Through 1997–98* (NCES 2002–317). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data sources:

NCES: The following components of the Common Core of Data (CCD): "Local Education Agency Universe Survey," 1990–91 and 2000–01; "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 and 2000–01; "Public Elementary/Secondary School Universe Survey," 2000–01; and "National Public Education Financial Survey," 1998–99.

Bureau of the Census: "Annual Survey of Government Finances: School Systems," 1999.

For technical information, see the complete report:

Young, B.A. (2002). *Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 2000–01* (NCES 2002–351).

Author affiliation: B.A. Young, NCES.

For questions about content, contact Beth A. Young (beth.young@ed.gov).

To obtain the complete report (NCES 2002–351), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

POSTSECONDARY EDUCATION

Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999–2000
Laura Horn, Katharin Peter, and Kathryn Rooney 79

Student Financing of Undergraduate Education: 1999–2000
Lutz Berkner, Ali Berker, Kathryn Rooney, and Katharin Peter 87

Student Financing of Graduate and First-Professional Education: 1999–2000
Susan P. Choy and Sonya Geis 93

Teaching With Technology: Use of Telecommunications Technology by Postsecondary Instructional Faculty and Staff in Fall 1998
Edward C. Warburton, Xianglei Chen, and Ellen M. Bradburn 98

Teaching Undergraduates in U.S. Postsecondary Institutions: Fall 1998
Xianglei Chen 103

The Gender and Racial/Ethnic Composition of Postsecondary Instructional Faculty and Staff: 1992–98
Denise Glover and Basmat Parsad 113

Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98
Basmat Parsad and Denise Glover 127

Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999–2000

Laura Horn, Katharin Peter, and Kathryn Rooney

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Postsecondary Student Aid Study (NPSAS).

Postsecondary education in the United States encompasses a wide array of educational opportunities and programs. U.S. undergraduates attend postsecondary institutions that range from 4-year colleges and universities offering programs leading to baccalaureate and higher degrees to private for-profit vocational institutions offering occupational training of less than 1 year. This report provides a detailed statistical overview of the approximately 16.5 million undergraduates enrolled in all U.S. postsecondary institutions in 1999–2000. Preceding the detailed statistical tables is a discussion of the undergraduate population's diversity and the possible impact of this diversity on persistence in postsecondary education.

This report is based on data from the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000), a survey representing all students enrolled in postsecondary education in 1999–2000.

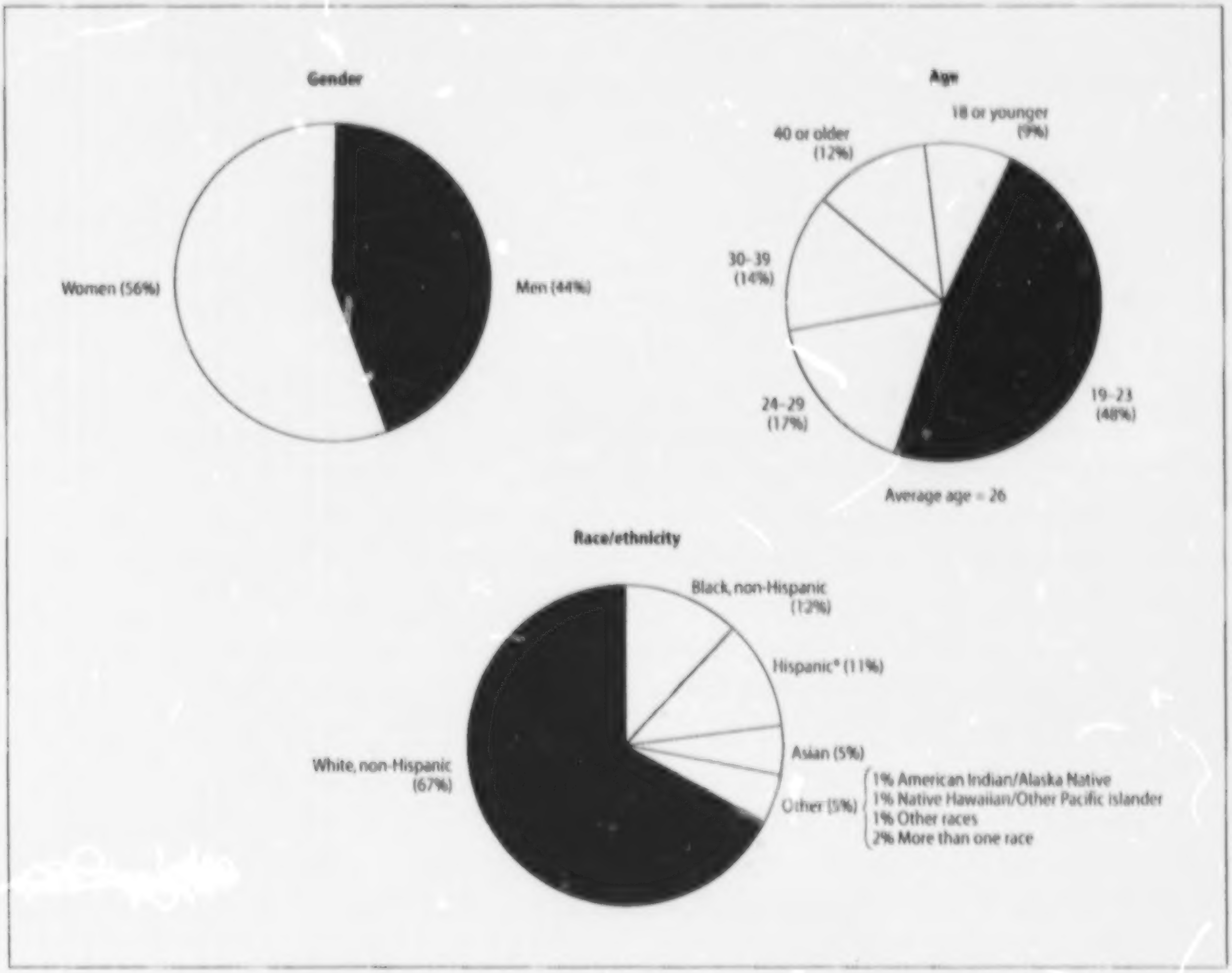
Who Were 1999–2000 Undergraduates?

Taking into account enrollments at all U.S. postsecondary institutions, women comprised 56 percent of undergraduates in 1999–2000 (figure A). Minority students represented about one-third of the total undergraduate population, including 12 percent Black, 11 percent Hispanic, and 5 percent Asian.[1] Roughly 2 percent of undergraduates were either American Indian/Alaska Natives (0.9 percent) or Native Hawaiian/Other Pacific Islanders (0.8 percent). And

---

[1] Census categories for race and ethnicity were used in the NPSAS survey, which included the terms "Black or African American" and "Hispanic or Latino." By convention, the terms Black and Hispanic are used in the text. Unless otherwise noted, when discussing race, Black and White estimates do not include individuals of Hispanic ethnicity.

Figure A.—Percentage distributions of 1999–2000 undergraduates, by gender, age, and race/ethnicity



*Priority was given to Hispanic ethnicity regardless of race chosen.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

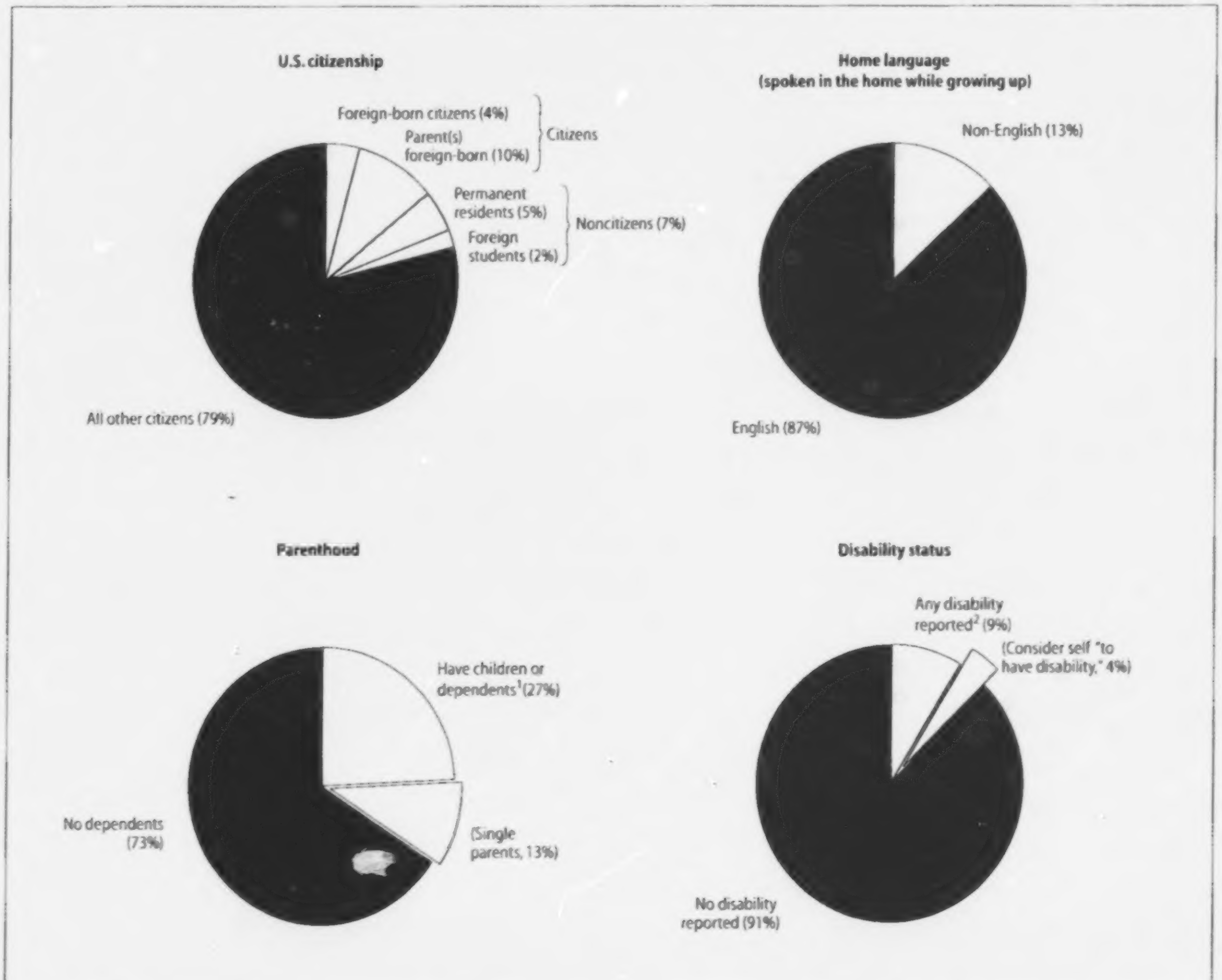
about 2 percent indicated that they were of more than one race.

Among Hispanic undergraduates, Mexican, Mexican American, or Chicano students made up the largest group (55 percent vs. 4 to 27 percent for other Hispanic groups). Among Asian undergraduates, Chinese students made up the largest group (25 percent vs. 3 to 13 percent for other Asian groups).

While a majority of undergraduates were younger than 24, about one in four were 30 or older. The average age of undergraduates was 26 and the median age was 22.

About 7 percent of undergraduates were not U.S. citizens. Of these noncitizens, 5 percent were permanent residents, and 2 percent were foreign students. Undergraduates who were born in another country, immigrated to the United States, and became citizens comprised 4 percent of undergraduates (figure B). One in ten undergraduates were born

Figure B.—Percentage distributions of 1999–2000 undergraduates, by citizenship, home language, parenthood, and disability status



[1] Dependents do not include spouse.

[2] Includes students who reported having a "long-lasting" condition such as blindness, deafness, or a severe vision or hearing impairment; who reported having a condition that limits "one or more of the basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying"; or who reported having any other physical, mental, or emotional condition that lasted 6 or more months *and* difficulty doing one of the following five activities: getting to school, getting around campus, learning, dressing, or working at a job. Does not include an additional 2 percent who responded "yes" to the questions about conditions lasting 6 or more months, but did not report a specific difficulty with one of the five listed activities.

NOTE: Detail may not sum to totals because of rounding. Estimates include a small percentage of students in Puerto Rico.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

in the United States but had at least one foreign-born parent. In addition, 13 percent of undergraduates spoke a language other than English in the home while growing up.

Students who were parents made up 27 percent of undergraduates,[2] including 13 percent who were single parents.[3] While women were more likely to be single parents (16 percent), 9 percent of unmarried men also reported having dependents.

When asked to report on a series of disabling conditions or difficulties with basic physical activities, 9 percent of undergraduates reported having some such condition or difficulty.[4] However, when asked specifically, "Do you consider yourself to have a disability?" the proportion who responded "yes" was considerably lower (4 percent).

Where Undergraduates Enroll and What They Study

In 1999–2000, where undergraduates were enrolled and how much time they spent in the classroom was related to their age and life circumstances (table A). Older

---

[2] This is the percentage of financially independent undergraduates who reported having dependents other than a spouse. Therefore, it includes a small number of students having dependents other than children (3.7 percent), such as elderly parents or relatives whom they support.

[3] Identified as financially independent students who were not married (including divorced or separated students) and who reported having dependents other than a spouse.

[4] Includes students who reported having a "long-lasting" condition such as blindness, deafness, or a severe vision or hearing impairment; who reported having a condition that limits "one or more of the basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying"; or who reported having any other physical, mental, or emotional condition that lasted 6 or more months *and* difficulty doing one of the following five activities: getting to school, getting around campus, learning, dressing, or working at a job.

Table A.—Percentage of 1999–2000 undergraduates attending selected types of institutions, and percentage distribution of undergraduates attending full time and part time

	Institution attended			Attendance status		
Student characteristics	4-year public and private not-for-profit	Public 2-year	Private for-profit	Exclusively full time	Mixed full time and part time	Exclusively part time
Total	45.4	42.1	4.9	49.3	16.3	34.5
Gender						
Male	46.4	42.1	4.5	50.1	15.9	34.0
Female	44.6	42.2	5.2	48.6	16.6	34.9
Race/ethnicity						
White, non-Hispanic	47.5	41.3	3.8	49.5	16.2	34.4
Black, non-Hispanic	39.3	44.4	7.8	49.6	15.1	35.3
Hispanic*	39.9	44.7	8.5	47.0	16.2	36.8
Asian	48.3	39.0	4.3	51.4	19.3	29.3
American Indian/Alaska Native	35.1	53.4	2.9	44.2	18.6	37.3
Native Hawaiian/Other Pacific Islander	39.6	46.9	5.6	46.3	17.3	36.4
Other	42.1	40.4	4.5	53.7	17.8	28.5
Age						
18 or younger	52.0	38.0	3.5	72.0	11.1	16.9
19–23 years	55.4	32.3	3.8	63.0	18.1	18.9
24–29 years	38.9	45.8	8.1	38.0	18.0	44.1
30–39 years	30.6	56.1	6.3	26.9	15.8	57.3
40 years or older	26.3	63.4	4.1	18.3	11.4	70.4
Dependent family income in 1998						
Less than $20,000	49.3	36.1	6.1	68.4	14.5	17.1
$20,000–39,999	53.5	34.4	3.4	64.6	17.0	18.5
$40,000–59,999	56.6	33.6	2.3	65.6	17.1	17.3
$60,000–79,999	59.0	31.1	2.1	67.0	17.5	15.5
$80,000–99,999	63.5	25.8	1.7	66.7	18.8	14.5
$100,000 or more	67.3	23.2	1.0	70.5	15.5	14.0

*Priority was given to Hispanic ethnicity regardless of race chosen.

NOTE: Percentages for institution attended do not add to 100 because students in other institution types and those attending more than one institution are not shown. Attendance status detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

undergraduates, who are more likely to have family and work responsibilities, were concentrated in public 2-year colleges (often called "community colleges") and they were very likely to attend on a part-time basis. Younger undergraduates were more likely to be enrolled in 4-year institutions and to attend full time. For example, 56 percent of undergraduates in their thirties and 63 percent of those 40 or older attended community colleges, while 55 percent of those ages 19 to 23 were enrolled in 4-year institutions. Moreover, 57 percent of undergraduates in their thirties and 70 percent of those 40 or older attended exclusively part time, while 63 percent of those ages 19 to 23 attended exclusively full time.

While women attended postsecondary education in greater numbers than men, no overall differences by gender were detected in the level of institution attended or in part-time or full-time attendance status. For example, 45 percent of women and 46 percent of men attended 4-year institutions (public and private not-for-profit institutions combined).[5] Across all postsecondary institutions, 50 percent of men and 49 percent of women attended exclusively full time.

Some differences in patterns of enrollment at different types of institutions were found relative to racial/ethnic groups. For example, 39 percent of Black undergraduates attended 4-year institutions, compared with 48 percent of White students.[6] Black and Hispanic undergraduates were more likely than White undergraduates to attend private for-profit institutions, though the proportions were relatively small (8 percent of Black and 9 percent of Hispanic students, compared with 4 percent of White students).

Where undergraduates enrolled differed by income level. Among dependent undergraduates,[7] for example, the rate of attending 4-year institutions rose with each successive level of family income. The opposite pattern occurred for public 2-year institutions: as family income levels rose, the rate of dependent undergraduates who attended public 2-year institutions declined.

Degree program

The patterns of participation in degree programs paralleled the level of institution undergraduates attended. In particular, those who attended either public 2-year institutions or private for-profit vocational institutions tended to be enrolled in either associate's degree or vocational certificate programs, while those enrolled in 4-year institutions were enrolled almost exclusively in baccalaureate programs.

About 44 percent of undergraduates were in baccalaureate programs, and 38 percent were in associate's degree programs (table B). In addition, 12 percent were working toward a vocational certificate, while 7 percent were not working toward any postsecondary credential.

Older students, who were more concentrated in community colleges, were more likely than their younger counterparts to be working toward an associate's degree. This was particularly true for students in their thirties, among whom 45 percent were in associate's degree programs, compared with 33 percent of students ages 19 to 23. Undergraduates in the oldest age group (40 or older) were more likely than undergraduates overall to be taking courses that were not leading to any degree or certificate (16 percent vs. 7 percent).

The relatively short time frame of vocational certificate programs may attract students with limited time. This may have been the case for undergraduates with children (including single parents), 20 percent of whom were enrolled in vocational certificate programs, compared with 12 percent of undergraduates overall.

Field of study

Among undergraduates with a declared major (90 percent had declared a major), the largest proportions majored either in business-related fields (19 percent) or arts and humanities (18 percent). Eight to 10 percent majored in each of the following: social and behavioral sciences, computer science, education, health, and other technical or professional fields. No more than 6 percent majored in any other field.

Historically, women have outnumbered men in education and health, while men have outnumbered women in computer science and engineering. The same patterns were found among 1999–2000 undergraduates: 2 percent of women versus 11 percent of men majored in engineering, and 6 percent of women versus 13 percent of men majored in computer and information sciences. In contrast, 11 percent of women versus 4 percent of men majored in education, and 15 percent of women versus 4 percent of men majored in health. In the likelihood of majoring in

---

[5] Men were slightly more likely than women to attend public 4-year institutions, however (33 percent vs. 31 percent).

[6] While it may also appear that Hispanic undergraduates are less likely than White undergraduates to attend 4-year institutions (40 percent vs. 48 percent), there was not enough statistical evidence to draw this conclusion.

[7] Dependent undergraduates are those who are under 24 years old and who are financially dependent on their parents.

84

Table B.—Percentage distribution of 1999–2000 undergraduates, by undergraduate degree program

Student characteristics	Certificate	Associate's degree	Bachelor's degree	No undergraduate degree
Total	12.1	37.5	43.8	6.6
Gender				
Male	12.3	36.4	44.5	6.7
Female	12.0	38.4	43.2	6.5
Race/ethnicity				
White, non-Hispanic	10.4	36.7	46.2	6.7
Black, non-Hispanic	18.2	39.8	37.2	4.8
Hispanic*	16.5	41.0	36.3	6.3
Asian	9.6	32.1	49.2	9.1
American Indian/Alaska Native	12.8	48.6	28.5	10.2
Native Hawaiian/Other Pacific Islander	14.6	39.8	38.0	7.6
Other	11.8	38.3	44.2	5.6
Age				
18 or younger	7.8	36.8	49.5	5.9
19–23 years	7.2	33.2	55.7	3.9
24–29 years	14.4	42.1	36.6	6.9
30–39 years	20.1	44.9	26.9	8.1
40 years or older	22.9	40.2	21.4	15.5
Dependents other than spouse				
None	9.2	34.7	50.1	6.0
One or more	20.1	45.3	26.5	8.1
Single parent				
No	10.9	36.2	46.4	6.5
Yes	20.1	46.0	26.7	7.2

*Priority was given to Hispanic ethnicity regardless of race chosen.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

business, however, no differences were detected between men and women or among racial/ethnic groups.

Age was also related to field of study. Undergraduates who were 30 or older were more likely than those 23 or younger to major in computer science fields and less likely to major in social and behavioral sciences.

Undergraduate Diversity and the Risk of Leaving Postsecondary Education

The 1999–2000 undergraduates were examined with respect to seven risk factors previously found to be negatively associated with persistence and degree attainment (Horn and Premo 1995). The risk factors include delaying enrollment by a year or more, attending part time, being financially independent (for purposes of determining eligibility for financial aid), having children, being a single parent, working full time while enrolled, and being a high school dropout or a GED recipient. These risk factors involve enrollment patterns, family and financial status, and high school graduation status. From this perspective, the risk factors are highly related to characteristics of a diverse undergraduate population as described in this study, and some (such as parenthood) are one and the same.

In 1999–2000, three-quarters of all undergraduates reported at least one risk factor (table C). Overall, the average number of risk factors reported by all undergraduates was 2.2. More risk factors were reported by Black students (2.7), American Indian/Alaska Native students (2.8), and Hispanic students (2.4). The same was found for students with disabilities, who averaged 2.6 risk factors.

Based on their risk profile, parents are at greater risk than other undergraduates (i.e., they are financially independent, have children, and may be single parents). Undergraduates with children or other dependents averaged 4.3 risk factors, and single parents averaged 4.7 risk factors.

Because female undergraduates were more likely than male undergraduates to be parents, they averaged more risk factors (2.3 vs. 2.1). However, because men were more

Table C.—Percentage of 1999–2000 undergraduates with various risk factors, and the average number of risk factors

Student characteristics	Any risk factors	Delayed enrollment	Part-time attendance	Financially independent	Have dependents or children	Single parent	No high school diploma	Work full time while enrolled	Average number of risk factors
Total	75.0	45.5	49.1	50.9	26.9	13.3	7.8	37.8	2.2
Gender									
Male	74.8	46.4	48.3	47.5	21.5	9.1	7.5	40.7	2.1
Female	75.2	44.8	49.8	53.5	31.0	16.5	8.1	35.7	2.3
Race/ethnicity									
White, non-Hispanic	72.7	42.8	48.7	48.3	23.7	10.0	6.1	37.2	2.0
Black, non-Hispanic	81.5	53.1	49.3	62.4	42.8	28.9	9.7	42.8	2.7
Hispanic*	81.4	50.9	52.2	54.3	32.4	17.3	12.3	41.4	2.4
Asian	73.5	49.7	45.6	47.7	18.5	9.7	14.1	24.9	1.9
American Indian/Alaska Native	83.9	57.9	56.6	65.9	37.5	21.1	13.2	46.7	2.8
Native Hawaiian/Other Pacific Islander	79.1	53.4	53.4	48.2	20.1	9.6	11.4	30.7	2.1
Other	71.5	35.2	45.6	43.5	18.4	8.0	8.0	34.4	1.9
Age									
18 or younger	40.8	9.6	26.3	6.9	5.6	5.2	5.3	16.1	0.7
19–23 years	59.4	31.2	34.0	15.6	11.1	8.8	4.4	24.2	1.2
24–29 years	100.0	62.5	61.6	100.0	35.4	19.4	10.1	52.1	3.2
30–39 years	100.0	72.9	73.1	100.0	61.0	23.0	14.4	60.8	3.8
40 years or older	100.0	74.7	82.0	100.0	55.0	17.4	12.9	62.7	3.8
Respondent has dependents									
None	65.9	37.5	42.8	32.8	0.0	0.0	5.8	30.5	1.4
One or more	100.0	67.6	66.3	100.0	100.0	49.4	13.4	57.0	4.3
Single parent									
No	71.2	42.1	47.6	43.4	15.7	0.0	6.6	35.7	1.8
Yes	100.0	68.0	59.2	100.0	100.0	100.0	15.9	54.2	4.7
Disability or difficulty status									
No disability reported	71.5	35.6	47.1	47.8	26.7	11.3	6.4	39.7	2.1
Some disability reported	82.9	47.1	51.7	63.3	34.8	16.6	12.1	33.8	2.6

*Priority was given to Hispanic ethnicity regardless of race chosen.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

likely to work full time, no differences were detected between men and women in their overall likelihood of having at least one risk factor (75 percent).

According to a study of persistence in postsecondary education (Berkner, Cuccaro-Alamin, and McCormick 1996), 64 percent of beginning students with one risk factor persisted in their postsecondary program or completed a degree or vocational certificate within 5 years, compared with 43 percent of those with three or more risk factors. Thus, among 1999–2000 undergraduate students with three or more risk factors, at least half might be expected to leave postsecondary education without completing a degree or certificate.[8]

Conclusions

This profile of 1999–2000 undergraduates suggests that the postsecondary education system in the United States offers opportunities to a diverse group of individuals. Indeed, the admissions policies of most community colleges and some 4-year colleges—combined with federal, state, and institutional financial aid—have provided access to postsecondary education for individuals of widely varying backgrounds and resources. Despite such enrollment opportunities, however, gaining access to postsecondary education does not necessarily lead to obtaining a degree or certificate. In fact, as the diversity of the undergraduate population broadens, it is possible that the rate of leaving postsecondary education without a degree will increase. Accommodating an undergraduate population that carries a substantial risk of attrition will be a continuing challenge to postsecondary education institutions.

---

[8] The time frame of the persistence survey was 5 years, so it is possible that some students could return after 5 years.

References

Berkner, L., Cuccaro-Alamin, S., and McCormick, A. (1996). *Descriptive Summary of 1989–90 Beginning Postsecondary Students: 5 Years Later* (NCES 96–155). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Horn, L.J., and Premo, M.D. (1995). *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1992–93, With an Essay on Undergraduates at Risk* (NCES 96–237). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Data source: The NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

For technical information, see the complete report:

Horn, L., Peter, K., and Rooney, K. (2002). *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999–2000* (NCES 2002–168).

Author affiliations: L. Horn, K. Peter, and K. Rooney, MPR Associates, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–168), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Student Financing of Undergraduate Education: 1999–2000

Lutz Berkner, Ali Berker, Kathryn Rooney, and Katharin Peter

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES National Postsecondary Student Aid Study (NPSAS).

During the 1999–2000 academic year, about 16.5 million* undergraduates were enrolled in postsecondary institutions for all or part of the year, as full- or part-time students. More than one-half (55 percent) of them received some type of financial aid from federal, state, institutional, or other sources to meet their educational expenses, receiving, on average, $6,200 (figure A). This report describes the financing of undergraduate education by students who were enrolled in U.S. postsecondary institutions during the 1999–2000 academic year. It is based on data from the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000), the fifth in a series of surveys conducted by the National Center for Education Statistics (NCES), U.S. Department of Education. Each NPSAS survey is a comprehensive nationwide study to determine how students and their families pay for postsecondary education.

The two major types of financial aid awarded to students are grants and loans. In 1999–2000, 44 percent of all undergraduates received grants, for an average of $3,500. Twenty-nine percent of all undergraduates received student loans, averaging $5,100. In addition, 5 percent of all undergraduates held work-study jobs, earning an average of $1,700, and 7 percent received other types of aid, including veteran's benefits, job training and vocational rehabilitation funds, and federal PLUS loans to parents.

Many undergraduates received more than one type of financial aid in their aid "package." As shown in figure A, for 7 percent of all undergraduates, student loans were the only type of financial aid received; 22 percent took out loans but were also awarded grants or other aid; and 27 percent had aid packages that included grants, work-study, or other aid, but no loans. Those who had aid packages consisting of loans and other aid averaged $10,600 in total aid, compared with $5,200 for those with loans only and $2,900 for those without loans.

Thirty-nine percent of all undergraduates were enrolled full time for a full academic year in 1999–2000, but the proportion varied by type of institution, from more than one-half of the undergraduates at 4-year institutions to about one-fifth at public 2-year institutions. Figure B shows that among full-time, full-year undergraduates, about three-fourths (73 percent) relied on some type of financial aid to help pay for their postsecondary education, receiving an average of $8,500.

Tuition and the Total Price of Attendance

Within an institution, full-time, full-year students usually have the highest educational expenses because they are charged the full tuition price and incur other education-related expenses for a full academic year. As shown in figure C, the tuition and fees for full-time, full-year undergraduates in 1999–2000 averaged about $1,600 at public 2-year institutions, $4,300 at public 4-year institutions, $8,900 at private for-profit institutions, and $15,000 at private not-for-profit 4-year institutions. The tuition and fees at any particular institution within these sectors may vary considerably from these averages.

The total price of attendance is the sum of tuition and fees and estimated nontuition expenses such as room and board, books and supplies, transportation, and personal expenses while enrolled. For full-time, full-year undergraduates, the average total price of attendance in 1999–2000 was $9,100 at public 2-year institutions, $12,600 at public 4-year institutions, $18,400 at private for-profit institutions, and $23,600 at private not-for-profit 4-year institutions. Tuition and fees and nontuition expenses for the 62 percent of undergraduates enrolled part time or part year are much lower than these amounts.

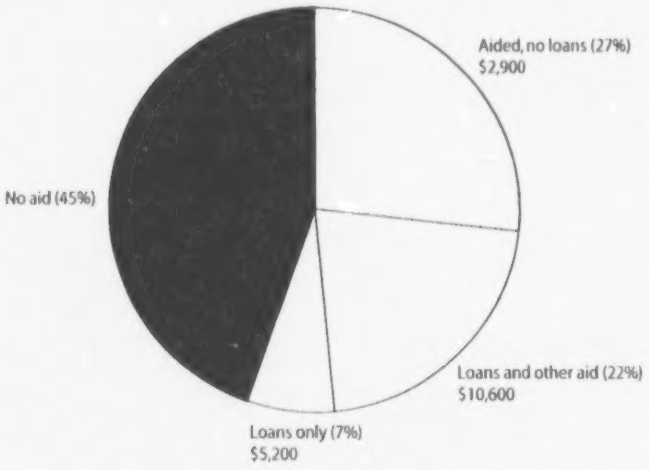
Financial Aid, Price of Attendance, and Income

The percentage of undergraduates receiving financial aid increased as the price of attendance rose, while the percentage receiving aid decreased as family income rose. These two patterns reflect the need analysis formula used to award financial aid. With the exception of some merit-based scholarships and some loan programs (notably, federal unsubsidized Stafford and PLUS loans), most financial aid programs are need based. Low-income students who have limited resources will usually qualify for need-based aid at any price of attendance; high-income students will only qualify for need-based aid if they are attending institutions

---

*Data not shown. This estimate is for undergraduates enrolled at any time in 1999–2000, and is therefore higher than the total fall enrollment.

Figure A.—Percentage distribution of all undergraduates according to aid package, percentage receiving different types of aid, and average amount of aid for aided students: 1999–2000



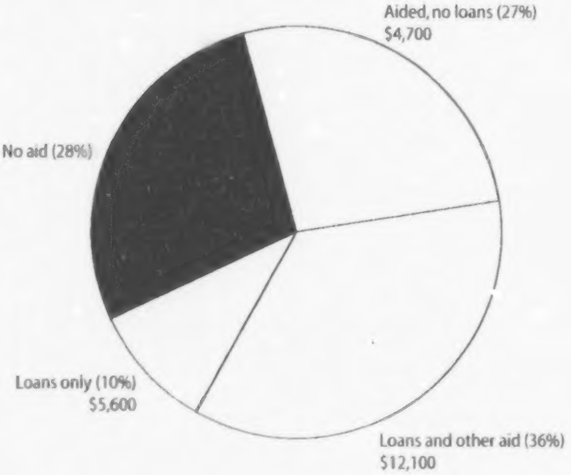
All undergraduates

Aid type	Percent	Average
Grants	44	$3,500
Loans	29	$5,100
Work-study	5	$1,700
Other	7	$4,700
Any aid	55	$6,200

NOTE: "Loans" only include loans to students. Parent PLUS loans are categorized as "other aid." Percentage distribution may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

Figure B.—Percentage distribution of full-time, full-year undergraduates according to aid package, percentage receiving different types of aid, and average amount of aid for aided students: 1999–2000



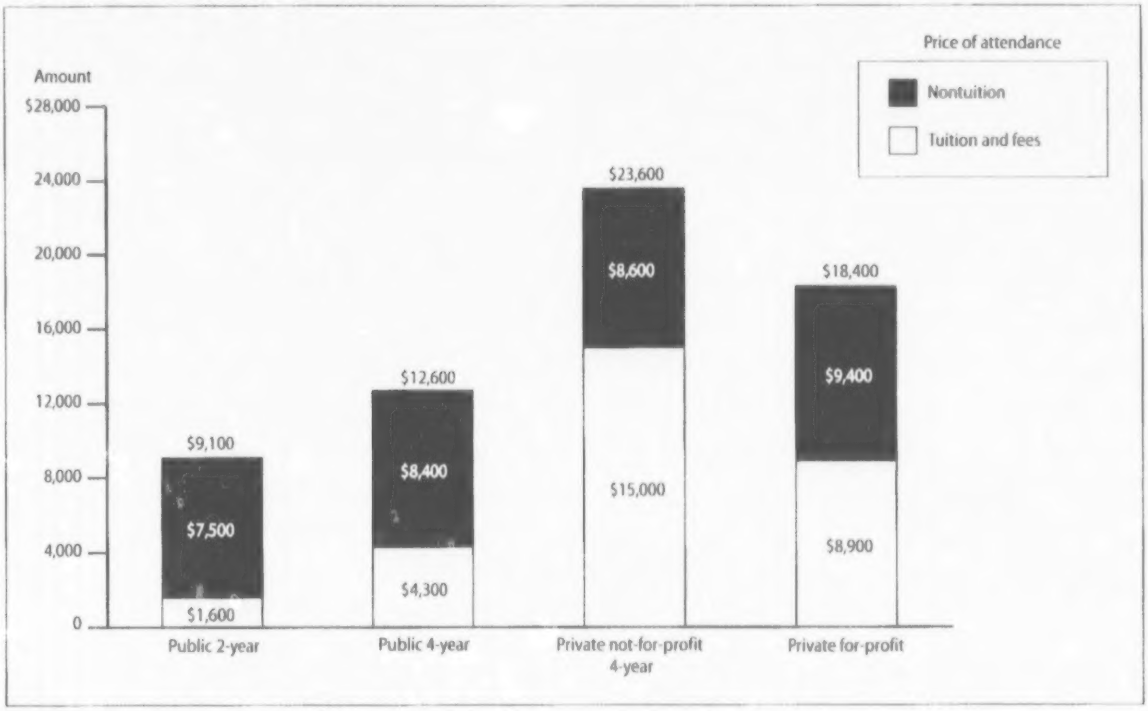
Full-time, full-year undergraduates

Aid type	Percent	Average
Grants	59	$4,900
Loans	45	$5,400
Work-study	11	$1,700
Other	10	$6,000
Any aid	73	$8,500

NOTE: "Loans" only include loans to students. Parent PLUS loans are categorized as "other aid." Percentage distribution may not sum to 100 because of rounding. Full-time, full-year students represent 39 percent of all undergraduates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

Figure C.—Average tuition and fees, nontuition expenses, and total price of attendance for full-time, full-year undergraduates, by type of institution attended: 1999–2000



NOTE: Nontuition expenses are based on institutional student budget estimates and include room and board, books and supplies, transportation, and personal expenses while enrolled. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

with a high price of attendance. About three-fourths of all low-income dependent undergraduates (those with a family income of less than $30,000) received financial aid in 1999–2000, compared with about one-half (48 percent) of high-income dependent undergraduates (those with a family income of more than $80,000).

Financial Aid by Type of Institution Attended

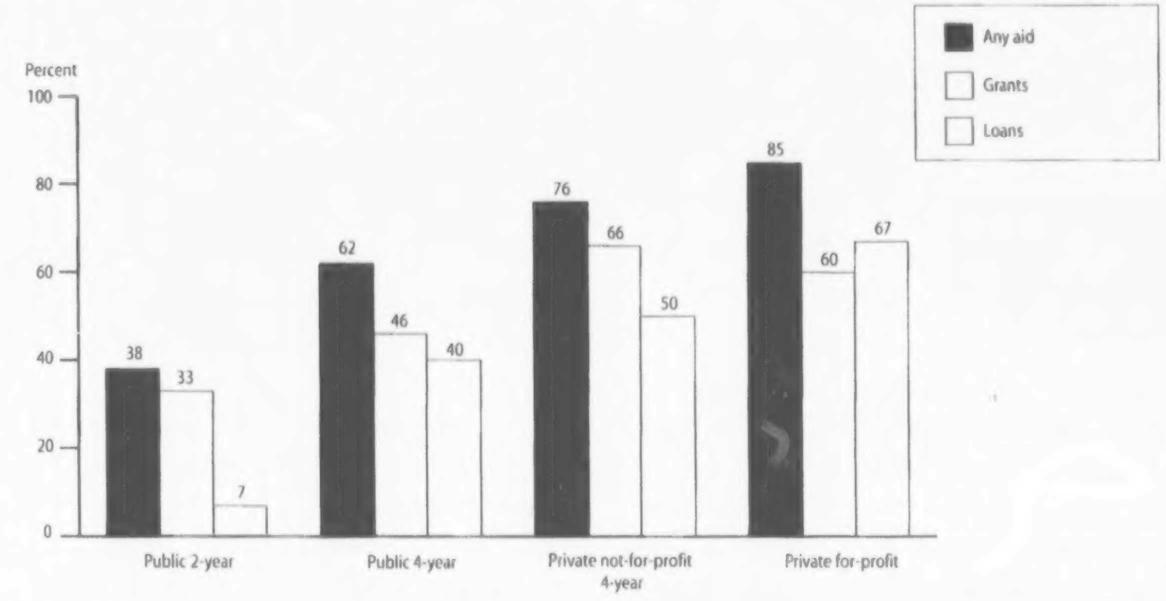
The percentage of undergraduates receiving financial aid, the types of aid received, and the average amounts varied by the type of institution attended, as shown in figure D. At public 2-year institutions, 38 percent of all undergraduates received financial aid in 1999–2000, with an average award of $2,300. One-third (33 percent) of the public 2-year students received a grant (averaging $1,600), and 7 percent took out a student loan (averaging $3,300). These percentages and average amounts were lower than those in any other sectors, reflecting the lower tuition and the high percentage of part-time and part-year students (81 percent) at public 2-year institutions.

At public 4-year institutions, 62 percent of all undergraduates received financial aid, with an average award of $6,200. The percentage awarded grants was higher than the percentage taking out student loans (46 vs. 40 percent), but the average grant amount was lower than the average loan amount ($3,200 vs. $4,800).

At private not-for-profit 4-year institutions, 76 percent of all undergraduates received financial aid, and the average amount was $11,600. About two-thirds of undergraduates (66 percent) had grants, and one-half took out student loans. The average grant amount was higher than the average loan amount ($7,000 vs. $6,200).

At private for-profit institutions, 85 percent of undergraduates received financial aid, including 67 percent with loans and 60 percent with grants. Students enrolled at private for-profit institutions were more likely to be low income than those at the other types of institutions.

Figure D.—Percentage of all undergraduates receiving any aid, grants, or loans and average amounts received by aided students, by type of institution attended: 1999–2000



	Public 2-year	Public 4-year	Private not-for-profit 4-year	Private for-profit
Average total aid*	$2,300	$6,200	$11,600	$7,200
Average grants	1,600	3,200	7,000	2,700
Average loans	3,300	4,800	6,200	5,800

*Includes types of aid other than grants and loans.

NOTE: "Loans" only include loans to students. Parent PLUS loans are categorized as "other aid."

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

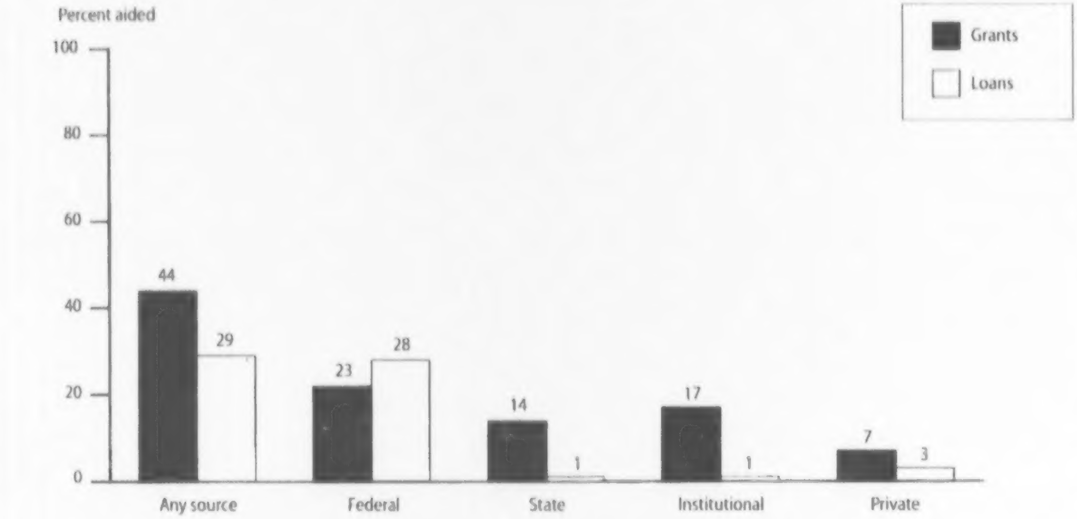
The Sources of Financial Aid

As shown in figure E, undergraduates with loans were most likely to receive them from the federal government: in 1999–2000, the percentage of undergraduates taking out federal loans (28 percent) was much higher than the percentages borrowing through state (1 percent), institutional (1 percent), and private commercial or nonprofit sources (3 percent).

Undergraduates with grants, on the other hand, were more likely to receive them from a variety of sources. More undergraduates were awarded grants from the federal government (23 percent) than from any other source, but 17 percent received grants from institutional sources, 14 percent from state sources, and 7 percent from private sources. Low-income dependent undergraduates were more likely to receive grants from the federal government than from any other source. Middle-income dependent undergraduates were more likely to receive grants from state and institutional sources than from federal or private sources. High-income dependent undergraduates were more likely to receive grants from state, institutional, and private sources than from federal sources. Both low-income and middle-income independent undergraduates were more likely to receive grants from the federal government than from any other source.

Among all undergraduates, federal grants were awarded to 17 percent of those at public 2-year institutions, about one-quarter of those at public and private not-for-profit 4-year institutions, and 53 percent of those at private for-profit institutions. At private not-for-profit 4-year institutions, 46 percent of all undergraduates received institutional grants, a higher percentage than at any other type of institution. Undergraduates at these institutions also received a larger average institutional grant award ($6,600) than those at any other type of institution.

Figure E.—Percentage of all undergraduates receiving grants or loans and average amounts received by aided students, by source of funds: 1999–2000



	Any source	Federal	State	Institutional	Private
Average total aid*	$6,200	$5,200	$1,800	$3,800	$3,200
Average grants	3,500	2,100	1,700	3,700	2,100
Average loans	5,100	4,600	3,900	2,400	5,100

*Includes types of aid other than grants and loans.

NOTE: "Loans" only include loans to students. Parent PLUS loans are categorized as "other aid." Employer tuition reimbursements are not shown separately, but are included in total grants.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

Student Loans

Among undergraduates who borrowed in 1999–2000, nearly all (97 percent) took out federal student loans; 13 percent took out nonfederal loans, usually in combination with federal loans. The average federal student loan was $4,600.

The largest source of federal student loans is the Stafford loan program, which offers students two types of loans, subsidized and unsubsidized. Subsidized Stafford loans are awarded on the basis of need and are interest free to students while they are enrolled. Unsubsidized Stafford loans require no need test, but charge interest while students are enrolled. Depending on their financial need, students may receive subsidized loans, unsubsidized loans, or both types. Stafford loans have annual loan limits that vary by students' class level and dependency status. Students may borrow more at higher class levels, and independent students may borrow about double the amount available to dependent students at the same class level.

About one-half (48 percent) of Stafford borrowers took out need-based subsidized loans only, 17 percent took out unsubsidized loans only, and 36 percent took out both. Independent undergraduates were more likely than dependent undergraduates to take out a combination of subsidized and unsubsidized loans (58 percent vs. 21 percent), and the average Stafford loan was higher for independent than for dependent undergraduates ($5,500 vs. $3,800). Among dependent Stafford borrowers, 69 percent borrowed the maximum annual amount. Among independent borrowers, whose annual loan limits were about double those for dependent borrowers, 27 percent borrowed the maximum.

Student Borrowing at Different Types of Institutions

The student loans that undergraduates took out to pay for educational expenses in 1999–2000 may represent only a portion of the cumulative amount that they had borrowed for their undergraduate education. Among all undergraduates enrolled in postsecondary education, 42 percent had borrowed through the federal student loan programs at some time, either in that academic year or in prior years, with an average cumulative amount of $9,900. Among the seniors who received a bachelor's degree at any 4-year institution in 1999–2000, 62 percent had taken out a federal student loan at some time, and for those students, the average cumulative amount was $16,900.

While only 7 percent of all public 2-year undergraduates took out a federal student loan in 1999–2000 (borrowing an average of $3,100), 23 percent had taken out a federal student loan at some time, either in the 1999–2000 academic year or earlier, borrowing a cumulative amount of $6,300, on average. Many students had already repaid their federal loans, probably because they had borrowed only in prior years and had spells in which they were not enrolled; 17 percent still had outstanding federal loan debts.

About one-half (52 percent) of all undergraduates attending public 4-year institutions in 1999–2000 had borrowed through the federal student loan programs at some time, averaging a cumulative amount of $11,000 in federal loans. Sixty percent of those who attained a bachelor's degree at a public 4-year institution in 1999–2000 had taken out a federal student loan at some time as an undergraduate, with a cumulative average of $16,100 in federal loans.

At private not-for-profit 4-year institutions, 61 percent of undergraduates had received a federal student loan at some time, with a cumulative average of $12,000. About two-thirds (66 percent) of the graduating seniors at private not-for-profit 4-year institutions had borrowed through the federal student loan programs as undergraduates, having received $18,000, on average, by the completion of their bachelor's degrees.

Summary

Financial aid played a major role in the financing of undergraduate postsecondary education in 1999–2000. More than one-half of all undergraduates received some type of financial aid. More undergraduates received grants than loans to help pay for their education, but the average grant amount was less than the average amount borrowed. The average amounts of financial aid, however, varied considerably by the type of institution and price of attendance, as well as the attendance status and family income of the student. At public 2-year institutions, where students had a lower average price of attendance, most of the aided students did not take out student loans. At private not-for-profit 4-year institutions, where students had a higher average price of attendance, about one-half of undergraduates took out student loans, but most of them also received a substantial amount of grant aid.

More undergraduates received grants from the federal financial aid programs than from any other single source, but states, postsecondary institutions, and private organizations were also important sources of grant aid to undergraduates. Low-income dependent undergraduates were more likely to receive federal grants; middle-income dependent undergraduates were more likely to receive grants from state and institutional sources than from federal sources. High-income dependent undergraduates were more likely to receive grants from state, institutional, and private sources than from federal sources. Nearly all of the undergraduates who borrowed, however, took out loans through the federal student loan programs. On average, undergraduates borrowed about $5,100 to pay for educational expenses in 1999–2000. The cumulative federal loan amounts that undergraduates had ever borrowed were about twice this amount. Two-fifths of all undergraduates enrolled in 1999–2000 had borrowed through the federal student loan programs at some time, and their average cumulative federal loan was almost $10,000. Three-fifths of all the graduating seniors at 4-year institutions in 1999–2000 had borrowed through the federal student loan programs at some time, and their average cumulative federal loan was almost $17,000.

Data source: The NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

For technical information, see the complete report:

Berkner, L., Berker, A., Rooney, K., and Peter, K. (2002). *Student Financing of Undergraduate Education: 1999–2000* (NCES 2002–167).

Author affiliations: L. Berkner, A. Berker, K. Rooney, and K. Peter, MPR Associates, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–167), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Student Financing of Graduate and First-Professional Education: 1999–2000

Susan P. Choy and Sonya Geis

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES National Postsecondary Student Aid Study (NPSAS).

In 1999–2000, approximately 2.7 million students were enrolled in graduate and first-professional programs in colleges and universities in the United States. Using data from the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000), this report profiles students in various degree programs and examines how they paid for their education, with particular attention to their use of teaching and research assistantships. In addition, the report contains a compendium of tables providing detailed data on four topics: student and enrollment characteristics, types of financial aid, sources of financial aid, and employment. For each topic, highlights of major findings are also included.

Profile of Graduate and First-Professional Students

In 1999–2000, more than one-half (58 percent) of all graduate and first-professional students were enrolled at the master's level, with the majority of them enrolled less than full time, full year (figure A). Another 13 percent were enrolled in doctoral programs and an additional 12 percent in first-professional programs;* the latter were more likely than the former to attend full time, full year. The remaining 16 percent were enrolled in other graduate programs, including postbaccalaureate certificate programs and nondegree programs. Most of these students were enrolled less than full time, full year.

Master's degree students

At the master's degree level, approximately one-half of all students were working on either a master's degree in business administration (M.B.A.) (20 percent) or a master's degree in education (28 percent). The latter could include a Master of Arts in Teaching (M.A.T.), Master of Education (M.Ed.), or Master of Arts (M.A.) or Science (M.S.) with a major in education. The rest were working on an M.A. or M.S. degree in a field other than education (31 percent) or on a different master's degree such as a Master of Social Work (M.S.W.), Master of Public Administration (M.P.A.), or Master of Fine Arts (M.F.A.) (21 percent).

M.B.A. students were predominantly male (60 percent), and about two-thirds waited 3 or more years after earning their bachelor's degree before enrolling in the M.B.A. program. Most worked while enrolled (87 percent), and 75 percent of those who worked did so full time.

Master's students in education were primarily female. Some (17 percent) enrolled immediately after earning their bachelor's degree, but 83 percent waited at least a year, and 33 percent waited 7 years or more. Like M.B.A. students, most education master's students (91 percent) were combining school and work.

Noneducation M.A. and M.S. students were more traditional in their enrollment patterns. For example, they were more likely than M.B.A. or education students to enroll immediately after earning a bachelor's degree (about 26 percent vs. 12 and 17 percent, respectively), and they were more likely than education students to enroll full time, full year (about 31 percent vs. 16 percent).

Doctoral degree students

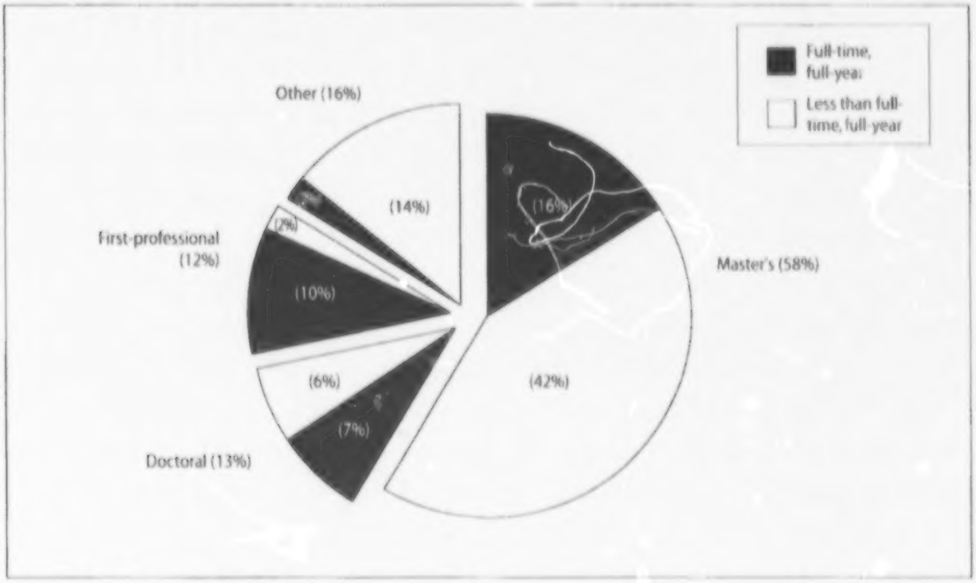
At the doctoral level, about 18 percent of all students were enrolled in education doctoral programs (either an Ed.D. or a Ph.D. with a major in education); 62 percent were enrolled in Ph.D. programs in fields other than education; and 21 percent were in other doctoral programs such as a Doctor of Business Administration (D.B.A.), Doctor of Public Administration (D.P.A.), or Doctor of Fine Arts (D.F.A.). Compared with master's students, doctoral students were more likely to enroll full time, full year (54 percent vs. 27 percent), and more likely to enroll right after earning their bachelor's degree (25 percent vs. 20 percent).

As was the case at the master's level, doctoral students in education differed from others at their level. For example, compared with Ph.D. students in other fields, doctoral students in education were more likely to be female (71 percent vs. 46 percent), be older (42 vs. 32 years, on average), delay enrollment after earning a bachelor's degree (89 percent vs. 72 percent), and, if they worked while enrolled, to work full time (74 percent vs. 27 percent).

---

*First-professional degree programs include the following: medicine (M.D.), chiropractic (D.C. or D.C.M.), dentistry (D.D.S. or D.M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Pharm.), podiatry (Pod.D. or D.P.M.), veterinary medicine (D.V.M.), law (L.L.B. or J.D.), and theology (M.Div., M.H.L., or B.D.).

Figure A.—Percentage distribution of graduate and first-professional students according to type of degree and attendance pattern: 1999–2000



NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

First-professional students

Among students at the first-professional level, 38 percent were in law; 27 percent were in medicine (M.D.); and 29 percent were in other health fields (chiropractic, dentistry, optometry, osteopathic medicine, pharmacy, podiatry, and veterinary medicine). The remaining 6 percent were in theology programs.

Students in first-professional degree programs were younger on average (28 years) than students in master's or doctoral degree programs (33 and 34 years, respectively). They were also more likely to enroll full time, full year (77 percent vs. 27 percent of master's students and 54 percent of doctoral students). Medical students were less likely than law students to work while enrolled (19 percent vs. 59 percent).

Paying for Graduate and First-Professional Education

In 1999–2000, 60 percent of all graduate and first-professional students and 82 percent of those enrolled full time, full year received some type of financial aid, including grants, loans, assistantships, or work-study (table A). The average amount of aid received by aided full-time, full-year students was about $19,500.

The percentages of students with financial aid and average amounts received varied by the level of the degree program. Among full-time, full-year students, 88 percent each of students at the doctoral and first-professional levels received aid, compared with 79 percent of students at the master's level. Among full-time, full-year students with grants, doctoral students received larger average amounts of grant aid (about $13,400) than did master's ($7,600) or first-professional ($6,900) students. However, full-time, full-year first-professional students took out larger loans, on average, than did their counterparts at the other two levels ($20,100 vs. $14,800 for master's students and $14,100 for doctoral students).

Assistantships

Assistantships benefit both students and their institutions. They provide students with a stipend to help cover their expenses and an opportunity to learn skills that help prepare them for their future careers. At the same time, they provide institutions with a source of labor for teaching and research projects. Twenty percent of all graduate and first-professional students and 32 percent of full-time, full-year students received an assistantship in 1999–2000. However, variation existed across degree program levels and fields of

Table A.—Percentage of full-time, full-year graduate and first-professional students who received any financial aid, grants, or loans and, for aided students, average amount, by type of degree and institution: 1999–2000

Type of degree and institution	Any aid		Grants		Loans	
	Percent	Amount	Percent	Amount	Percent	Amount
Total	82.2	$19,521	48.6	$8,930	53.7	$16,728
Master's degree	79.2	16,431	46.7	7,606	50.2	14,791
Public	78.5	14,036	46.4	6,579	44.4	11,585
Private not-for-profit	80.6	19,758	48.2	9,065	57.7	17,903
Doctoral degree	88.0	22,663	62.4	13,372	29.3	14,085
Public	89.4	19,047	62.1	9,842	26.2	10,628
Private not-for-profit	87.3	28,634	64.1	18,691	34.4	18,179
First-professional degree	88.1	22,803	45.2	6,942	80.4	20,141
Public	88.6	18,832	46.0	4,863	81.8	16,738
Private not-for-profit	88.4	26,043	44.9	8,673	79.9	22,961

NOTE: Total includes students in other types of graduate programs and at private for-profit institutions. Any aid includes assistantships and work-study as well as grants and loans.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

study. Doctoral students received assistantships more frequently (47 percent) than did master's (16 percent) or first-professional (11 percent) students. In addition, at the doctoral level, students in science and in engineering were more likely than students in the humanities/social sciences to have assistantships (figure B). At the master's level, M.A./M.S. students in science were more likely than those in other fields to have assistantships.

Assistantships are a common form of aid for foreign students, who are not eligible for federal grant and loan programs. In 1999–2000, 54 percent of foreign students received an assistantship, compared with 17 percent of U.S. citizens and resident aliens. This high percentage reflects the fact that about 40 percent of foreign students were studying science or engineering as well as their need to have an alternative to federal aid.

The average amount received by full-time, full-year graduate and first-professional students with assistantships was $9,800. Ph.D. students in the sciences who attended full time, full year received an average of $15,000 in assistantships, and those in engineering received an average of $13,500.

Students with assistantships often receive benefits in addition to a stipend. About two-thirds of those with teaching and research assistantships (64 and 67 percent, respectively) received tuition discounts or waivers in conjunction with their assistantship. Various types of insurance are also sometimes provided: 36 percent of teaching assistants and 42 percent of research assistants received insurance (such as health or life) that was at least partially paid for by their institutions.

One way of examining the contribution of assistantships is to compare them to the price of attending and to the amounts borrowed. For full-time, full-year graduate or first-professional students, the average price of attending (including tuition, books and supplies, and living expenses) was about $26,300. The average amount received for assistantships and the average amount borrowed were negatively related. For example, students with assistantships paying less than $5,000 borrowed an average of $7,700, while those with assistantships of $15,000 or more borrowed an average of $2,200.

Responsibilities of Teaching Assistants

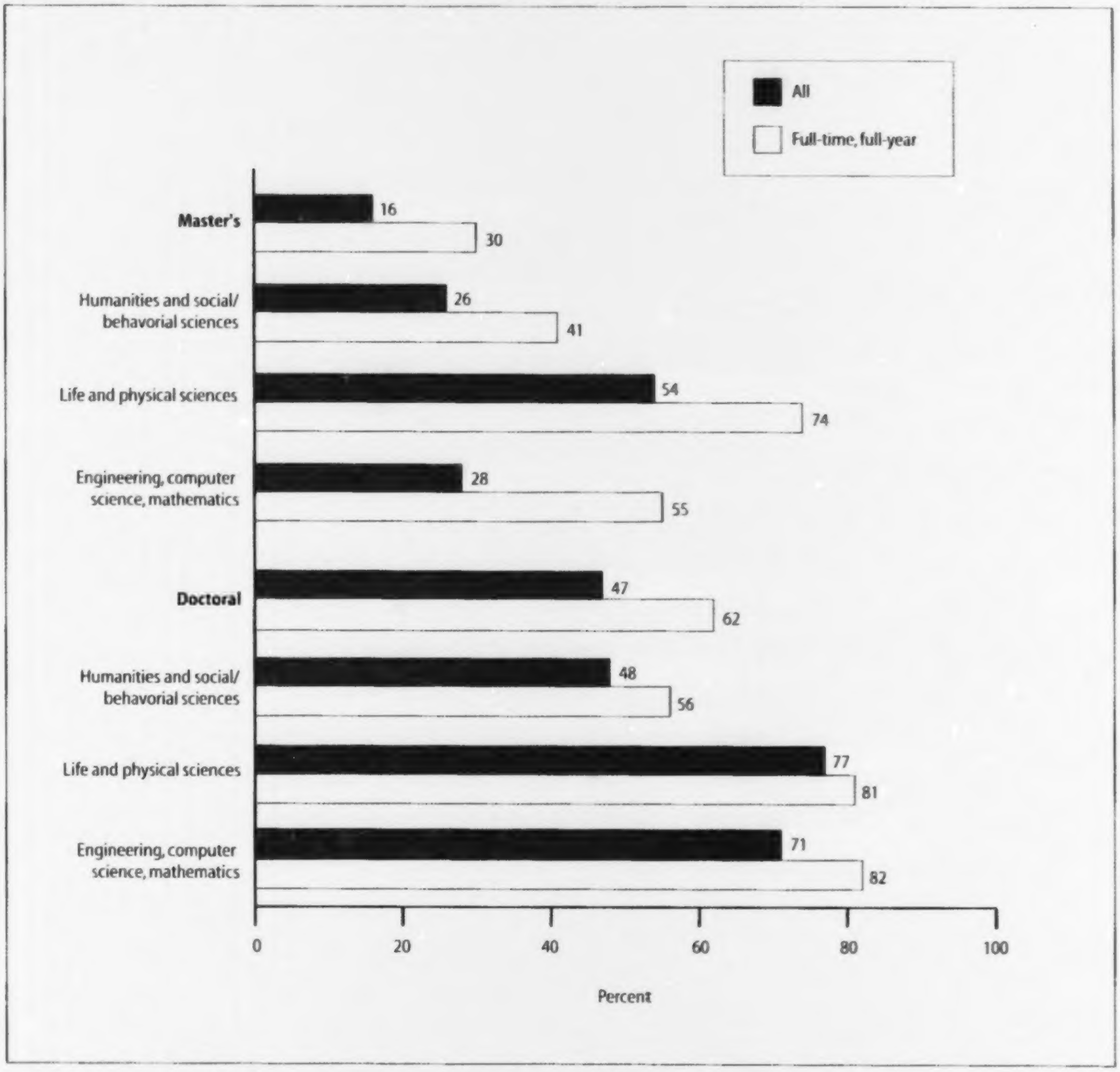
Teaching assistants were asked whether they had various responsibilities. They typically had multiple responsibilities. Almost one-half (46 percent) reported that they had full teaching responsibility for one or more courses during the 1999–2000 academic year. Forty-six percent led discussion sections for such courses, and 37 percent supervised lab sections for faculty-taught courses. The majority of teaching assistants held office hours (71 percent) and assisted faculty with grading or other instruction-related activities (70 percent).

Teaching assistants averaged a total of 15 hours per week in contact hours with students, office hours, or assisting faculty with grading or other instruction-related activities. Not included in this total are hours spent preparing for classes. Thus, the total time that teaching assistants devote to fulfilling their responsibilities is likely to be higher, especially for those individuals who have full responsibility for a course.

Summary

Graduate and first-professional students form a diverse group. In 1999–2000, some notable differences in student characteristics, enrollment patterns, and methods of paying for postbaccalaureate education existed across the major program levels (master's, doctoral, and first-professional), but differences existed within levels as well.

Figure B.—**Percentage of all master's and doctoral degree students and of full-time, full-year students who received assistantships, by selected fields of study: 1999–2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

About one in five graduate and first-professional students had a teaching or research assistantship in 1999–2000, but assistantships were more common at the doctoral than at the master's or first-professional levels. Assistantships were also concentrated by field. About three-quarters of doctoral students in science and in engineering received assistantships, and they received larger amounts on average than those in the humanities/social sciences. Teaching assistants spent an average of 15 hours per week working with students in the classroom or lab, holding office hours, or assisting faculty with grading or other instruction-related tasks.

Data source: The NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

For technical information, see the complete report:

Choy, S.P., and Geis, S. (2002). *Student Financing of Graduate and First-Professional Education: 1999–2000* (NCES 2002–166).

Author affiliations: S.P. Choy and S. Geis, MPR Associates, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–166), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Teaching With Technology: Use of Telecommunications Technology by Postsecondary Instructional Faculty and Staff in Fall 1998

Edward C. Warburton, Xianglei Chen, and Ellen M. Bradburn

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES National Study of Postsecondary Faculty (NSOPF).

This report examines postsecondary instructional faculty and staff's access to and use of electronic mail (e-mail) and the Internet. Though these telecommunications technologies are rapidly becoming core components of the instructional experience of students in the United States, little descriptive information exists at the national level to address basic questions about technology use and teaching in postsecondary education. The purpose of this study is to respond to this need by answering the following questions: Who has access to telecommunications technologies (in particular, the Internet)? How much and in what ways do they use these technologies for instructional purposes? How does technology use relate to workload and contact with students? The findings of this report are based on a nationally representative sample of instructional faculty and staff who taught one or more classes for credit in fall 1998. These data originate from the 1999 National Study of Postsecondary Faculty (NSOPF:99).[1]

Access to the Internet, Quality of Computing Resources, and Use of Telecommunications Technologies

Access to the Internet

In fall 1998, 97 percent of full-time instructional faculty and staff who taught classes for credit at degree-granting institutions had access to the Internet, including 98 percent of those at 4-year doctoral institutions, 97 percent of those at 4-year nondoctoral institutions, and 94 percent of those at 2-year institutions (figure A). Though part-time instructional faculty and staff were less likely to have access to the Internet compared with their full-time counterparts, a large majority of part-time instructional faculty and staff had access to the Internet (88 percent), including 92 percent of those at 4-year doctoral institutions, 88 percent of those at 4-year nondoctoral institutions, and 85 percent of those at 2-year institutions. Both full- and part-time instructional faculty and staff were more likely to have access both at home and at work than only at work or only at home.

Quality of computing resources

About 46 percent of full-time faculty and 41 percent of part-time faculty who taught classes for credit at doctoral-granting institutions rated their institution's quality of computing resources as good,[2] with an additional one-third of full-time faculty (32 percent) and one-quarter of part-time faculty (25 percent) rating the quality of computing resources as excellent. Both full- and part-time faculty at 4-year doctoral institutions were less likely than those at 4-year nondoctoral and 2-year institutions to rate the quality of their institution's computing resources as poor.

Use of Telecommunications Technologies

Although access to the Internet was widespread for postsecondary instructional faculty and staff in fall 1998 (figure A), the use of e-mail to communicate with students in classes was relatively lower both for full-time faculty (69 percent) and for part-time faculty (46 percent). The use of course-specific web sites for classes was also lower—40 percent for full-time faculty and 34 percent for part-time faculty. Overall, full-time faculty were more likely than their part-time counterparts to use e-mail and course-specific web sites. The use of e-mail and course-specific web sites also varied by type of institution: overall, faculty at 4-year doctoral institutions were more likely than those at 4-year nondoctoral and 2-year institutions to use e-mail to communicate with students and were also more likely to use course-specific web sites.

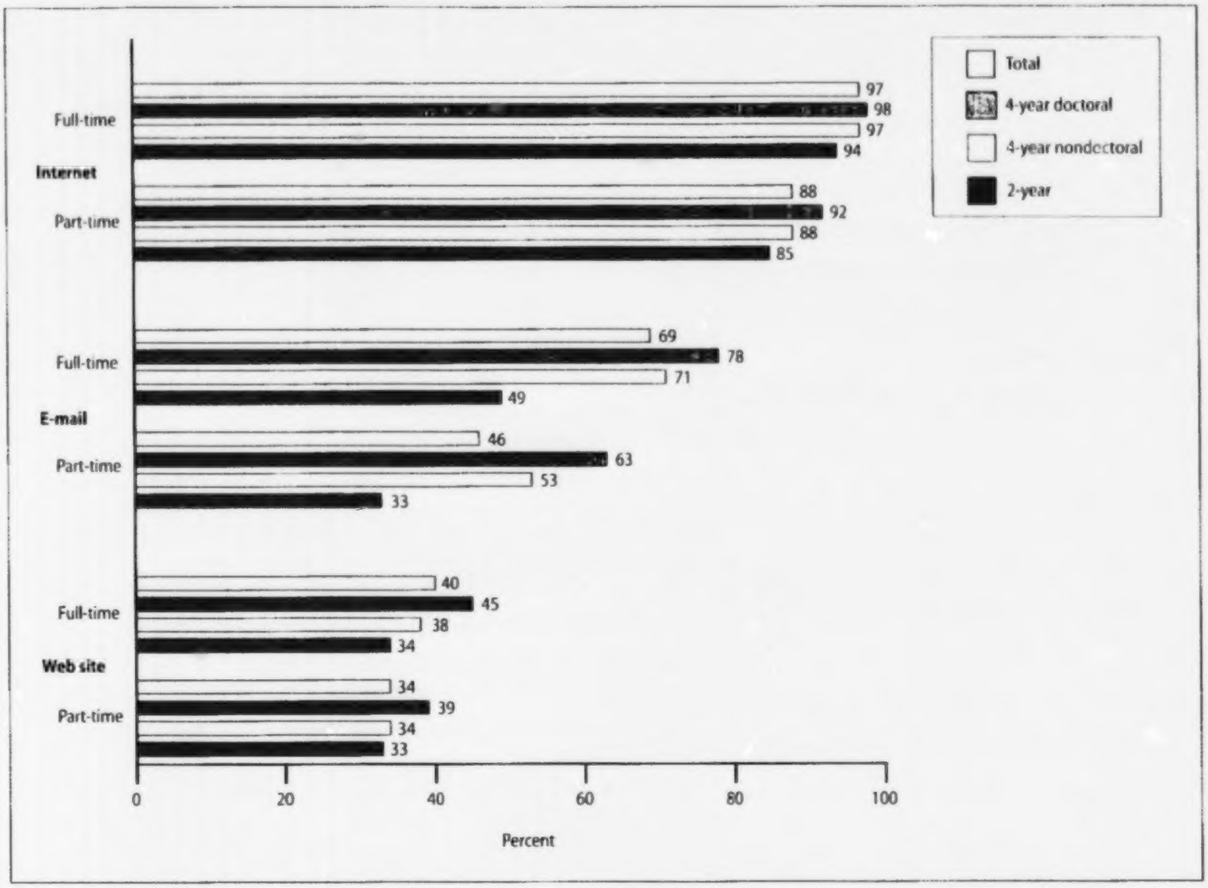
Instructional faculty and staff's use of e-mail to communicate with students in their classes was related to the level of students taught as well as to the age and principal field of teaching of faculty and staff. For example, as the age of full- and part-time instructional faculty and staff increased, their use of e-mail decreased. On average, faculty who taught

---

[1] Sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES), NSOPF:99 was conducted in 1999 and asked a nationally representative sample of faculty and instructional staff about their employment and work activities in fall 1998. According to NSOPF:99, there were approximately 1.1 million faculty and instructional staff employed by public and private not-for-profit 2-year and above postsecondary institutions in fall 1998. Of these, about 976,000 reported having some instructional responsibilities for credit, including teaching classes for credit or advising students about academic activities for credit. Among these individuals, approximately 90 percent, or 882,000 (501,000 full-time and 381,000 part-time), reported teaching one or more classes for credit in fall 1998. These individuals become the core sample of this report. In the interest of brevity, these individuals are referred to as "instructional faculty and staff," "instructional faculty," or simply "faculty" throughout this report, although they are a subset of faculty and instructional staff included in NSOPF:99.

[2] Quality of computing resources reflects the average of respondents' ratings of their institution's personal computers and local networks, centralized (main frame) computer facilities, Internet connections, and technical support for computer-related activities.

Figure A.—Percentage of postsecondary instructional faculty and staff who had access to the Internet, and who used e-mail and course-specific web sites, by employment status and institution type: Fall 1998



NOTE: This figure includes only instructional faculty and staff who taught one or more classes for credit. E-mail use was only for communicating with students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99).

both undergraduate and graduate students were more likely to use e-mail to communicate with students in their classes (81 percent of full-time and 65 percent of part-time faculty), compared with those who taught only undergraduates (66 percent of full-time and 44 percent of part-time faculty). Principal field of teaching also made a difference. For example, 82 percent of full-time and 65 percent of part-time engineering/computer science faculty used e-mail to communicate with students, while about one-half of full-time and 30 percent of part-time health sciences faculty used e-mail to communicate with students.

Relationship of Internet access and quality of computing resources to instructional use of technology

Full- and part-time instructional faculty and staff who rated their institution's computing resources as either good or excellent were much more likely to use e-mail to communicate with students in their classes than were those who rated their institution's computing resources as poor. In addition, instructional faculty and staff's use of e-mail to communicate with students in their classes and use of course-specific web sites was associated with their level of access to the Internet. Those who had access both at home and at work were more likely to use e-mail and course-specific web sites than those who had access only at work, had access only at home, or had no access. However, of those who had access to the Internet both at home and at work, full-time instructional faculty and staff were more likely to use e-mail to communicate with students in their classes (78 percent) than were their part-time counterparts (64 percent).

BEST COPY AVAILABLE

When taking into consideration the quality of computing resources, Internet access, and other academic and demographic characteristics of faculty, these variables accounted for 24 percent of the variance in faculty use of e-mail and 6 percent of the variance in faculty use of course-specific web sites.[3] When multivariate models were used to control for interrelationships among variables, postsecondary instructional faculty and staff who had access to the Internet both at home and at work were still more likely to use e-mail and course-specific web sites than were those who had access only at home or only at work. Postsecondary instructional faculty and staff at 4-year doctoral institutions were also more likely to use e-mail and course-specific web sites than were those at 4-year nondoctoral or 2-year institutions even when availability and quality of resources and other academic and demographic characteristics were taken into account.

Instructional faculty's principal field of teaching was also related to use of telecommunications technologies, while controlling for the covariation among variables. With the exception of four teaching fields (business, education, humanities, and social sciences), instructional faculty and staff who taught in the field of engineering/computer sciences were more likely to use e-mail than those who taught in other disciplines. Faculty who taught in engineering/computer sciences were also more likely than those who taught in other disciplines (except for business and vocational education) to use course-specific web sites.

When taking the interrelationships among other variables into account, instructional faculty and staff who rated their institution's computing resources as good or excellent were more likely to use course-specific web sites than were those who rated the computing resources as poor. The likelihood of using e-mail and course-specific web sites was also higher for instructional faculty and staff who taught both undergraduate and graduate students than for those who taught only undergraduates.

Teaching and Technology Use

Instructional faculty and staff at degree-granting institutions reported on the volume of e-mail use and how they used course-specific web sites in fall 1998. Both full- and part-time instructional faculty and staff reported spending an average of 2.7 hours per week responding to students' e-mail communications. Instructional faculty and staff who used course-specific web sites were more likely to use these web sites to post general class information and links to other information than for any of the other purposes examined (i.e., posting homework, practice exams/exercises, or exams/exam results) (figure B).

There was an association between type of institution and telecommunications technology use. Among full-time instructional faculty and staff who used e-mail to communicate with students in fall 1998, those at 4-year doctoral institutions reported that an average of 39 percent of their students e-mailed them, compared with 29 percent of students at 4-year nondoctoral institutions and 22 percent of students at 2-year institutions. Similarly, among part-time instructional faculty and staff who used e-mail, those at 2-year institutions reported that an average of 23 percent of their students e-mailed them, compared with 40 percent of students at 4-year doctoral institutions and 34 percent of students at 4-year nondoctoral institutions. At 4-year doctoral institutions, 85 percent of full-time and 84 percent of part-time instructional faculty used course-specific web sites for the purpose of posting general class information, compared with 75 percent of both full- and part-time faculty at 2-year institutions.

Workload and Technology Use

Compared with those who did not use telecommunications technologies, full- and part-time instructional faculty and staff who used e-mail or course-specific web sites generally reported working more hours per week on average, spending more time on research activities, and spending less time on teaching activities and office hours.

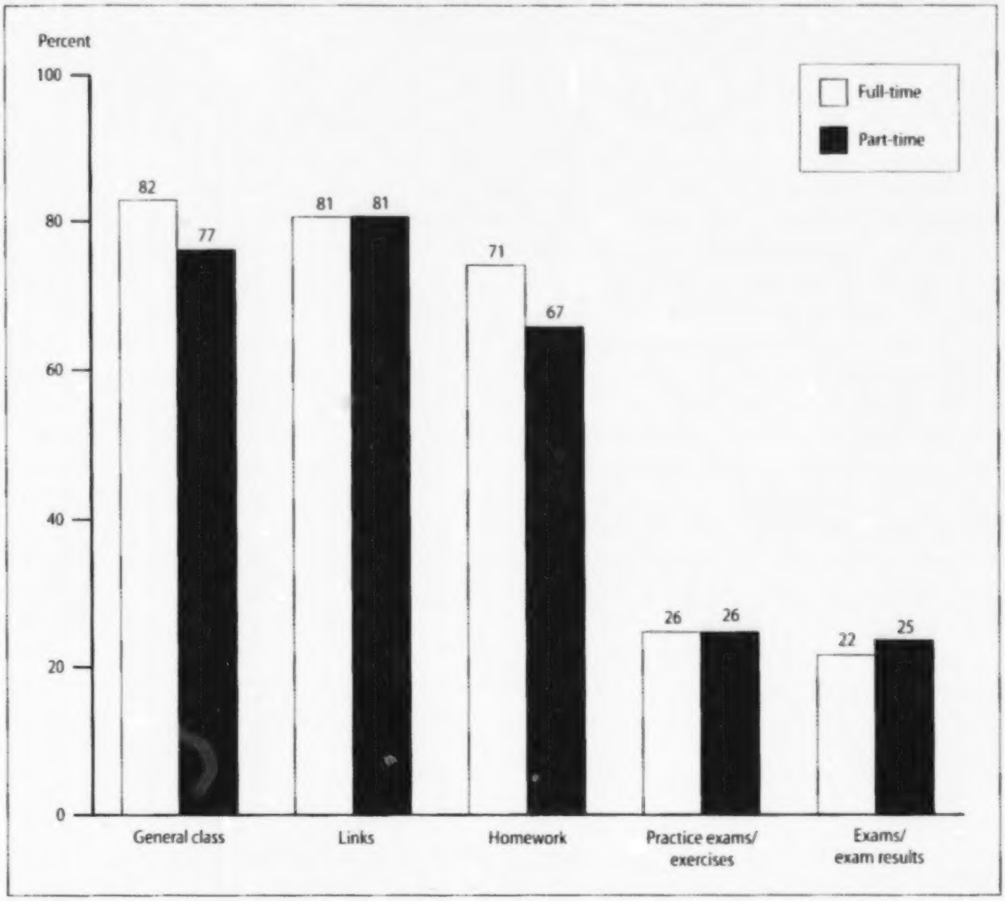
Hours worked

In fall 1998, full-time instructional faculty and staff worked an average of 53 hours per week, and part-time instructional faculty and staff worked an average of 37 hours per week. Full-time instructional faculty and staff who used either e-mail or course-specific web sites worked more hours per week on average (55 hours) compared with those who did not use e-mail (50 hours) or did not use course-specific web sites (52 hours). Among part-time instructional faculty and staff, those who used e-mail worked an average of 39 hours per week, compared with 36 hours per week for those who did not use e-mail. Part-time faculty who used course-specific web sites worked 43 hours per week, compared with 34 hours per week for those who did

---

[3] Bivariate correlations showed that the effect sizes of the independent variables on use of e-mail were small to moderate, with correlations ranging in absolute value from .001 to .295. The most important factor in accounting for the variance in e-mail use was Internet access, with a correlation of .290 between having Internet access both at home and at work and e-mail use, and a correlation of -.295 between having no Internet access and e-mail use. The correlations of the independent variables to use of web sites all represented small effect sizes, ranging in absolute value from .001 to .130 (having Internet access both at home and at work).

Figure B.—Among postsecondary instructional faculty and staff who used course-specific web sites, percentage using web sites for various teaching purposes, by employment status: Fall 1998



NOTE: This figure includes only instructional faculty and staff who taught one or more classes for credit and who also used course-specific web sites.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99).

not use course-specific web sites. This relationship between hours worked per week and use or nonuse of e-mail and course-specific web sites was generally found in all types of institutions with the following exceptions: no difference was found in work hours between full-time faculty who used course-specific web sites and those who did not use them at 4-year doctoral institutions, and between part-time faculty who used e-mail and those who did not use it at 4-year nondoctoral and 2-year institutions.

Work activities

In fall 1998, full-time instructional faculty and staff spent an average of 60 percent of their time on teaching activities, 14 percent on research activities, 13 percent on administrative duties, and 13 percent on other activities. Part-time instructional faculty and staff spent an average of 63 percent of their time on teaching activities, 5 percent on research activities, 3 percent on administrative duties, and 29 percent on other activities. Compared with those at 4-year nondoctoral and 2-year institutions, both full- and part-time instructional faculty and staff at 4-year doctoral institutions spent less of their time on teaching activities and more of their time on research. Overall, postsecondary instructional faculty and staff who used e-mail or course-specific web sites reported spending more time on research activities; those who did not use these resources reported spending a larger percentage of their time on teaching activities. However, this pattern was not generally found when taking into account type of institution. Full-time instructional faculty and staff at 4-year doctoral institutions who used e-mail reported spending more of their time on teaching activities (51 percent) compared with those who did not use e-mail (48 percent). They also spent more of their time on research activities (23 percent) compared with those who did not use e-mail (20 percent).

Classroom contact hours and office hours

Full-time instructional faculty had an average of 321 student classroom contact hours per week,[4] and part-time instructional faculty had about 176 student classroom contact hours per week. Full-time instructional faculty who used e-mail to communicate with students reported fewer average classroom contact hours (306 hours per week) than their colleagues who did not do so (353 hours per week). The average number of office hours per week was 6.5 hours for full-time instructional faculty and 2 hours for part-time faculty. The average number of office hours for full-time faculty who used e-mail (6.3 hours) was slightly lower than for those who did not use e-mail (7 hours).

Conclusion

In fall 1998, access to the Internet was common for postsecondary instructional faculty and staff. In addition, 69 percent of full-time faculty and 46 percent of part-time faculty used e-mail to communicate with students in their classes, and about one-third of both full- and part-time faculty used course-specific web sites.

While the overall findings in this report indicate increasing integration of telecommunications technologies in postsecondary settings, there are three caveats. First, this study showed wide differences between full- and part-time faculty in access to and use of telecommunications technologies. Without exception, full-time faculty reported more access to the Internet and more use of e-mail and course-specific web sites than did part-time faculty.

Second, Internet access and the quality of computing resources were important factors in the use of telecommunications technologies. Postsecondary instructional faculty and staff who had access to the Internet both at home and at work were significantly more likely to use e-mail and course-specific web sites than those who had access only at home or only at work. Clearly, the amount of Internet access was a main indicator of use for both e-mail and course-specific web sites, and it remained important after controlling for other variables. After controlling for other variables, the quality of computing resources also remained a significant factor in the likelihood of using course-specific web sites: overall, instructional faculty and staff who rated their institution's computing resources as good or excellent were more likely to use course-specific web sites than were those who rated the computing resources as poor.

Finally, the type of institution was shown repeatedly to be a key factor. In particular, postsecondary instructional faculty and staff at 4-year doctoral institutions were significantly more likely to use e-mail and course-specific web sites than those at 4-year nondoctoral or 2-year institutions.

Data source: The NCES 1999 National Study of Postsecondary Faculty (NSOPF:99).

For technical information, see the complete report:

Warburton, E.C., Chen, X., and Bradburn, E.M. (2002). *Teaching With Technology: Use of Telecommunications Technology by Postsecondary Instructional Faculty and Staff in Fall 1998* (NCES 2002–161).

Author affiliations: E.C. Warburton, X. Chen, and E.M. Bradburn, MPR Associates, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–161), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

---

[4] Total student contact hours were calculated as follows: For each for-credit class taught (a maximum of five classes could be reported by respondents), the number of hours per week spent teaching the class was multiplied by the number of students in the class. The products were then summed to obtain the total number of student classroom contact hours.

Teaching Undergraduates in U.S. Postsecondary Institutions: Fall 1998

— *Xianglei Chen*

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES National Study of Postsecondary Faculty (NSOPF).

Introduction

For some years now, the quality of undergraduate education has been one of the major concerns of public and private postsecondary institutions, state legislatures, the business community, parents, and students (Kerr 1994; Winston 1994). At the heart of this concern lies the issue of "who teaches undergraduates in postsecondary institutions" (Boyer Commission 1998). Although some research has been conducted to address this issue (Chen 2000; Middaugh 1999; Townsend 2000), current descriptive information regarding who teaches undergraduates at postsecondary institutions in the United States is limited. Using the most current national survey of faculty, the 1999 National Study of Postsecondary Faculty (NSOPF:99),[1] this report supplies such information by addressing the following three questions: 1) Who teaches undergraduates in postsecondary institutions?[2] 2) How much do they teach? and 3) What teaching practices do they use for their undergraduate teaching? The findings, which are summarized below, are based on a nationally representative sample of postsecondary faculty and instructional staff who reported having some instructional responsibilities for credit in fall 1998.

Who Teaches Undergraduates?

In fall 1998, U.S. colleges and universities employed about 1.1 million faculty and instructional staff. Of these, about 976,000 (91 percent) were identified as instructional faculty and staff who had some for-credit instructional responsibilities, including teaching classes for credit or advising or supervising students about academic activities for credit. These individuals were the core sample for this report. Throughout this report, faculty and staff who had some for-credit instructional responsibilities are called "instructional faculty and staff" or simply "faculty."

Overall pattern

In fall 1998, a majority of instructional faculty and staff were involved in undergraduate teaching: 85 percent reported being engaged in some kinds of undergraduate teaching activities,[3] and 83 percent reported providing at least one type of instruction to undergraduates, which could include for-credit classroom instruction, individual instruction,[4] and academic committee work[5] (figure A).

While there were different ways of delivering instruction to undergraduates, classroom teaching was the most common: in fall 1998, 77 percent of instructional faculty and staff reported teaching at least one undergraduate class for credit,[6] compared with 42 percent who provided individual instruction and 18 percent who served on academic committees. This pattern held true for both full- and part-time faculty[7] (figure A).

Variation across types of institutions

Overall, instructional faculty and staff at 4-year doctoral institutions were less likely to provide instruction to undergraduates than were their colleagues at 4-year nondoctoral and 2-year institutions. Two-thirds (67 percent) of full-time faculty at 4-year doctoral institutions reported providing at least one type of instruction to undergraduates, compared with 90 percent of their counterparts at 4-year nondoctoral institutions and 98 percent of those at 2-year institutions. Among full-time faculty who taught classes at any level, 69 percent of those at 4-year doctoral institutions reported teaching at least one undergraduate class and 44 percent reported teaching such classes exclusively, again lower than the percentages for their

---

[1] Sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES), NSOPF:99 was conducted in 1999 and asked a nationally representative sample of faculty and instructional staff about their employment and work activities in fall 1998.

[2] Using teaching assistants for undergraduate instruction has become increasingly common in many postsecondary institutions and has recently received much attention from the media (Robin 1999). However, there is little information available concerning the extent to which teaching assistants are being used. Although NSOPF:99 is a survey of faculty (i.e., it did not include teaching assistants in its sample), it did ask several questions about teaching assistants (e.g., whether faculty had teaching assistants in their classes; what percentage of undergraduate student credit hours were assigned to teaching assistants). These questions allowed some analysis of teaching assistants in this report.

[3] "Undergraduate teaching activities" were defined broadly and included teaching classes, grading papers, preparing courses, developing new curricula, advising or supervising students, supervising student teachers and interns, and working with student organizations or intramural athletics.

[4] Examples of individual instruction include independent study, supervising student teachers or interns, or one-on-one instruction, such as working with individual students in a clinical or research setting.

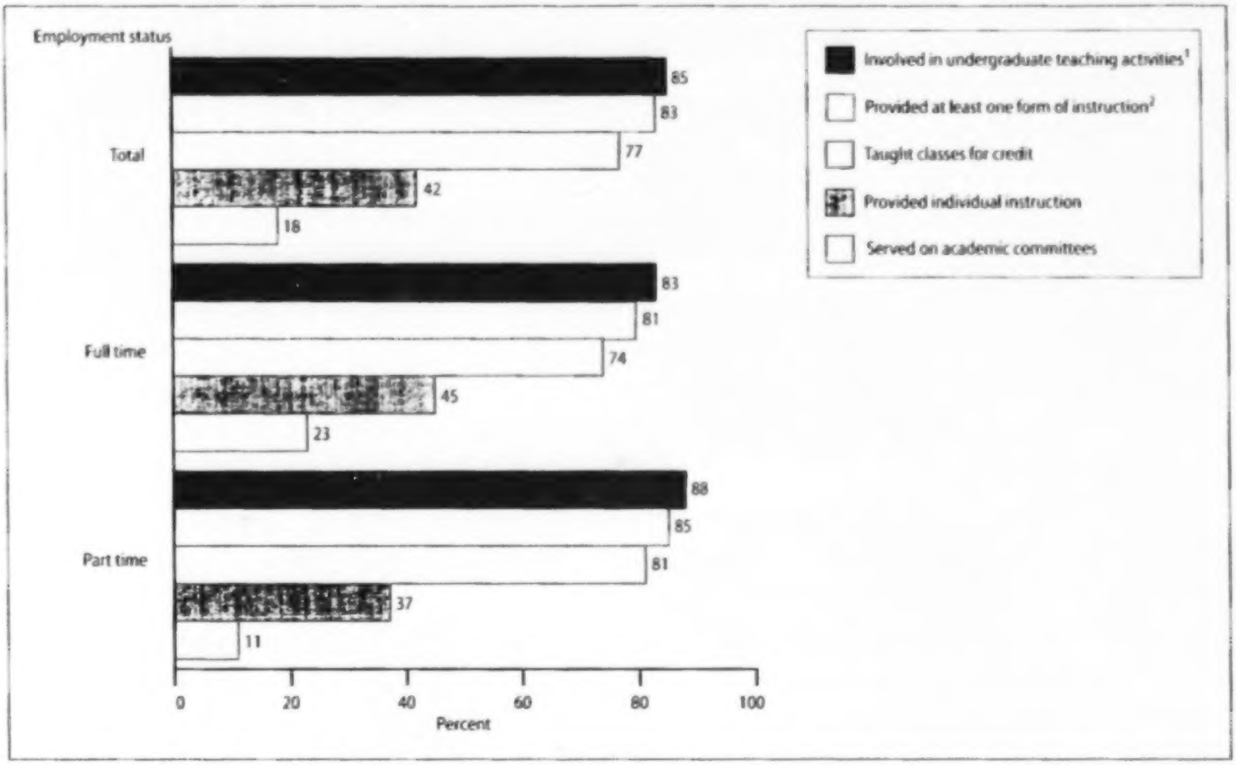
[5] Examples of undergraduate academic committees include thesis honors committees, comprehensive exams or orals committees, and examination/certification committees.

[6] The term "for credit" may be omitted for brevity throughout this report, but all classes examined are for credit.

[7] The terms "full time" and "part time" in this report refer to the employment status of the person at the sampled institution rather than the amount of time devoted to instruction.

BEST COPY AVAILABLE

Figure A.—Percentage of instructional faculty and staff in postsecondary institutions who were involved in undergraduate instruction, by type of instruction and employment status: Fall 1998



[1] "Undergraduate teaching activities" were defined broadly in the survey and included teaching classes, grading papers, preparing courses, developing new curricula, advising or supervising students, supervising student teachers and interns, and working with student organizations or intramural athletics.

[2] Including classroom instruction, individual instruction, and academic committee work.

NOTE: This figure includes all instructional faculty and staff at Title IV degree-granting institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

counterparts at 4-year nondoctoral institutions (90 percent and 74 percent, respectively).

Use of part-time faculty and teaching assistants

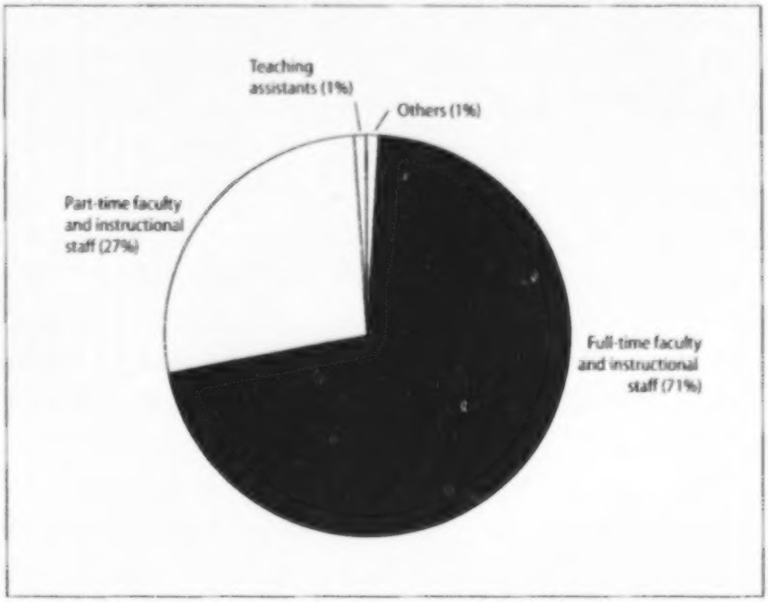
One issue of great concern to students, parents, administrators, state legislators, and the general public is the use of part-time faculty and teaching assistants to teach undergraduate courses (Cox 2000). Figure B presents NSOPF:99 data collected from institutions regarding the percentage distribution of undergraduate student credit hours assigned to various types of faculty and staff.[8] In fall 1998, about 71 percent of undergraduate credit hours across all types of institutions were assigned to full-time faculty and instructional staff, a considerably higher percentage than that assigned to part-time faculty (27 percent) and teaching assistants and other staff (1 percent for each group).

Furthermore, analysis of the data reported by faculty did not find that part-time faculty had a higher likelihood of teaching undergraduate students than their full-time colleagues. For example, at 4-year doctoral institutions, there was no difference found between the percentages of part- and full-time faculty who reported being engaged in undergraduate teaching activities (69 percent and 70 percent, respectively) or teaching at least one undergraduate class (58 percent and 57 percent, respectively). At 4-year nondoctoral institutions, part-time faculty were even less likely than full-time faculty to report providing at least one type of instruction to undergraduates (85 percent vs. 90 percent, respectively) and, in particular, teaching undergraduate classes (80 percent vs. 86 percent, respectively).

---

[8] Note that this percentage distribution represents the institutions' estimates concerning undergraduate credit hours assigned to various groups of faculty and staff rather than those of faculty members who reported actually teaching undergraduate classes in fall 1998.

Figure B.—Percentage distribution of undergraduate student credit hours assigned to various types of faculty and staff: Fall 1998



NOTE: This figure includes all Title IV degree-granting institutions. The percentage distribution represents institutions' estimates of undergraduate credit hours assigned to various groups of faculty and staff rather than those of faculty members who reported actually teaching undergraduate classes in fall 1998.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Institution Survey."

Involvement of senior faculty in teaching undergraduate classes

One indicator that might be of interest to researchers, students, and parents is the proportion of senior faculty members (i.e., full professors and tenured faculty), particularly those at research and doctoral institutions, who teach undergraduates. Figure C presents this information for 4-year doctoral institutions. Among full-time instructional faculty and staff who taught one or more classes at 4-year doctoral institutions in fall 1998, 63 percent of full professors reported teaching at least one undergraduate class and 37 percent of them reported teaching such classes exclusively. About 69 percent of full-time tenured faculty at 4-year doctoral institutions reported teaching at least one undergraduate class and 41 percent of them reported that all of their classes were at the undergraduate level.

Characteristics of faculty who taught undergraduate classes

There was considerable variation among postsecondary instructional faculty and staff regarding the extent to which they taught undergraduates. For example, among both part- and full-time instructional faculty and staff who taught classes at 4-year doctoral institutions, instructors/lecturers were more likely than assistant, associate, or full professors to teach undergraduate classes, and to teach such classes exclusively (table A). Faculty with a lower degree (e.g., a bachelor's or lower degree) were generally more likely than those with a doctoral or first-professional degree to teach undergraduate classes and to teach them exclusively.

At 4-year doctoral institutions, part-time faculty were more likely than full-time faculty to indicate that all of their classes were at the undergraduate level, although no difference was found between the two groups regarding teaching at least one undergraduate class. In addition, at 4-year doctoral institutions, non-tenure-track faculty were more likely than tenured faculty to report teaching undergraduate classes exclusively. There was also variation across teaching fields. At 4-year doctoral institutions, both full- and part-time faculty in the humanities were more likely than average to report teaching undergraduate classes and teaching such classes exclusively, whereas those in the health sciences were less likely to do so.

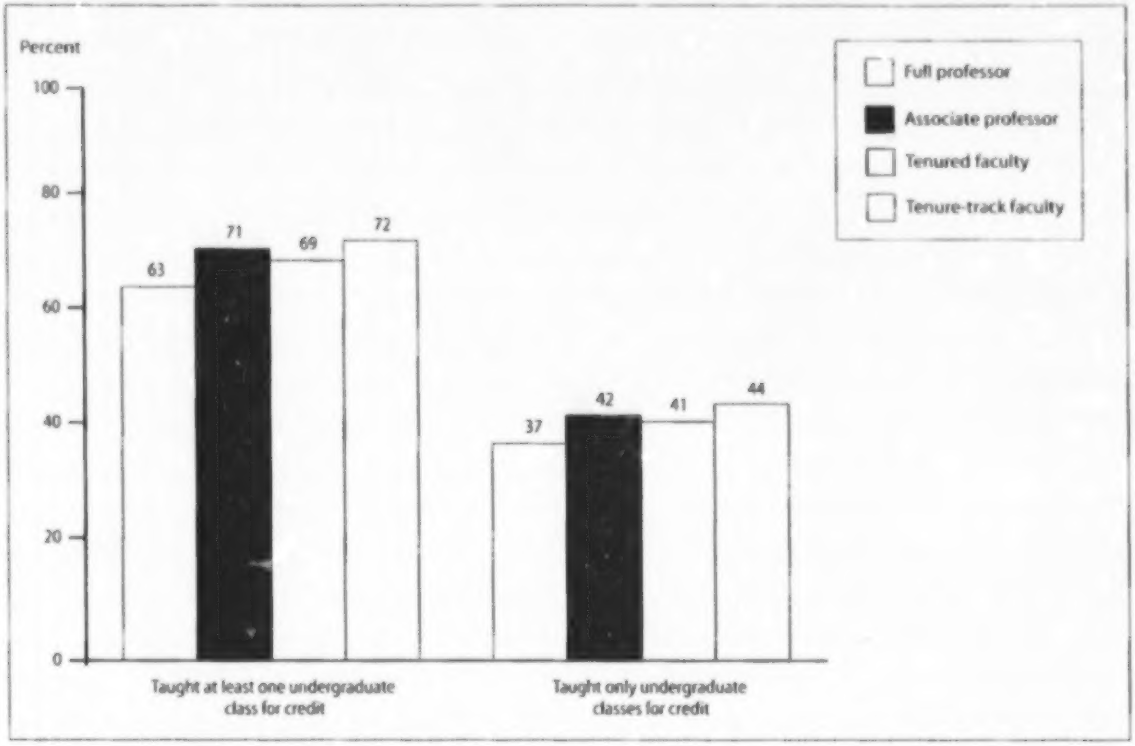


Figure C.—Of full-time instructional faculty and staff who taught classes for credit at 4-year doctoral institutions, percentage who taught at least one undergraduate class for credit and percentage who taught only undergraduate classes for credit, by academic rank and tenure status: Fall 1998

NOTE: This figure includes only full-time instructional faculty and staff who taught one or more classes for credit at 4-year doctoral institutions. Detailed information about classes could be reported for a maximum of five classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

Independent relationship of specific variables to teaching undergraduate classes

Most relationships described above remained after taking into consideration various academic and demographic characteristics of instructional faculty and staff. Specifically, after controlling for principal field of teaching, employment status, academic rank, highest degree, gender, race/ethnicity, and age, faculty at 4-year doctoral institutions were still less likely to teach undergraduate classes and to teach such classes exclusively than were their colleagues at 4-year nondoctoral institutions.[9] In addition, when other faculty characteristics were held constant, full professors were less likely to teach undergraduate classes or teach such classes exclusively than were instructors/lecturers. Faculty with a doctoral or first-professional degree were also less likely to do so than those with only a bachelor's or master's degree.

How Much Do Faculty Teach?

Time allocated to undergraduate teaching activities

The analysis of faculty time allocation indicated that undergraduate teaching remained the primary focus of postsecondary instructional faculty and staff. In fall 1998, instructional faculty and staff across all types of institutions devoted nearly one-half of their work time (48 percent) to undergraduate teaching activities, a higher percentage than that devoted to graduate teaching activities (11 percent), research (11 percent), administrative tasks (10 percent), and all other tasks (21 percent) (figure D). Similar patterns were observed among full- and part-time faculty.

However, faculty with a higher academic rank spent more of their time on research and graduate teaching activities and less of their time on undergraduate teaching activities than their junior colleagues. For example, at 4-year doctoral institutions, full-time full professors spent 48 percent of

---

[9] When taking into consideration a number of academic and demographic variables, these variables accounted for 18 percent of the variance in faculty teaching at least one undergraduate class and 21 percent of the variance in faculty teaching undergraduate classes exclusively. Bivariate correlations showed that the effect sizes of the independent variables on faculty teaching at least one undergraduate class or teaching undergraduate classes exclusively were small to moderate, with correlations ranging in absolute value from .004 to .285. The most important factor in accounting for the variance was type of institution, with a correlation of –.230 with faculty teaching at least one undergraduate class and –.285 with faculty teaching undergraduate classes exclusively.

Table A.—Of instructional faculty and staff who taught classes for credit at 4-year doctoral institutions, percentage who taught at least one undergraduate class for credit and percentage who taught only undergraduate classes for credit, by employment status and academic characteristics of instructional faculty and staff: Fall 1998

Academic characteristics of instructional faculty and staff	Taught at least one undergraduate class for credit		Taught only undergraduate classes for credit	
	Part time	Full time	Part time	Full time
Total	69.6	68.6	59.5	43.9
Academic rank*				
Full professor	48.5	63.3	34.2	37.1
Associate professor	59.7	70.9	41.3	42.0
Assistant professor	46.7	68.6	34.0	44.0
Instructor or lecturer	79.7	83.1	70.6	71.0
Tenure status				
Tenured	59.9	68.7	50.6	40.9
On tenure track	(#)	71.6	(#)	43.7
Not on tenure track	71.4	66.7	61.7	54.1
No tenure system	54.7	49.6	41.8	24.6
Highest degree obtained				
Doctoral/first-professional degree	55.5	65.6	42.9	39.7
Master's	81.7	85.5	74.0	68.0
Bachelor's or less	88.0	81.0	80.5	68.1
Principal field of teaching				
Agriculture and home economics	(#)	87.4	(#)	65.7
Business	74.0	78.8	67.8	47.6
Education	65.2	65.7	46.3	29.3
Engineering	62.7	77.7	50.9	45.3
Fine arts	93.5	89.3	84.9	58.8
Health sciences	37.8	37.2	25.6	19.6
Humanities	94.2	92.4	91.4	67.1
Natural sciences	88.1	68.1	74.8	45.0
Social sciences	73.7	79.2	62.3	53.1
All other programs	57.4	60.4	47.9	39.0

#Too small to report.

*Included in the total but not shown separately were those with other or no academic rank.

NOTE: This table includes only instructional faculty and staff who taught classes for credit at 4-year doctoral institutions. Detailed information about classes could be reported for a maximum of five classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

their work time on research and graduate teaching activities, a higher percentage than that spent by full-time instructors/lecturers (22 percent) (figure E). Conversely, full-time instructors/lecturers spent one-half of their work time on undergraduate teaching activities, compared with the 21 percent spent by full-time full professors.

Undergraduate teaching loads

In fall 1998, full-time postsecondary faculty who taught at least one undergraduate class taught an average of three undergraduate classes (worth approximately 10 credit hours), with a total of 86 undergraduate students in these classes (table B). They spent about 11 hours each week teaching undergraduates in class and generated a total of 309 undergraduate student classroom contact hours.[10] Most of these faculty members (77 percent) lacked a teaching assistant for their undergraduate classes.

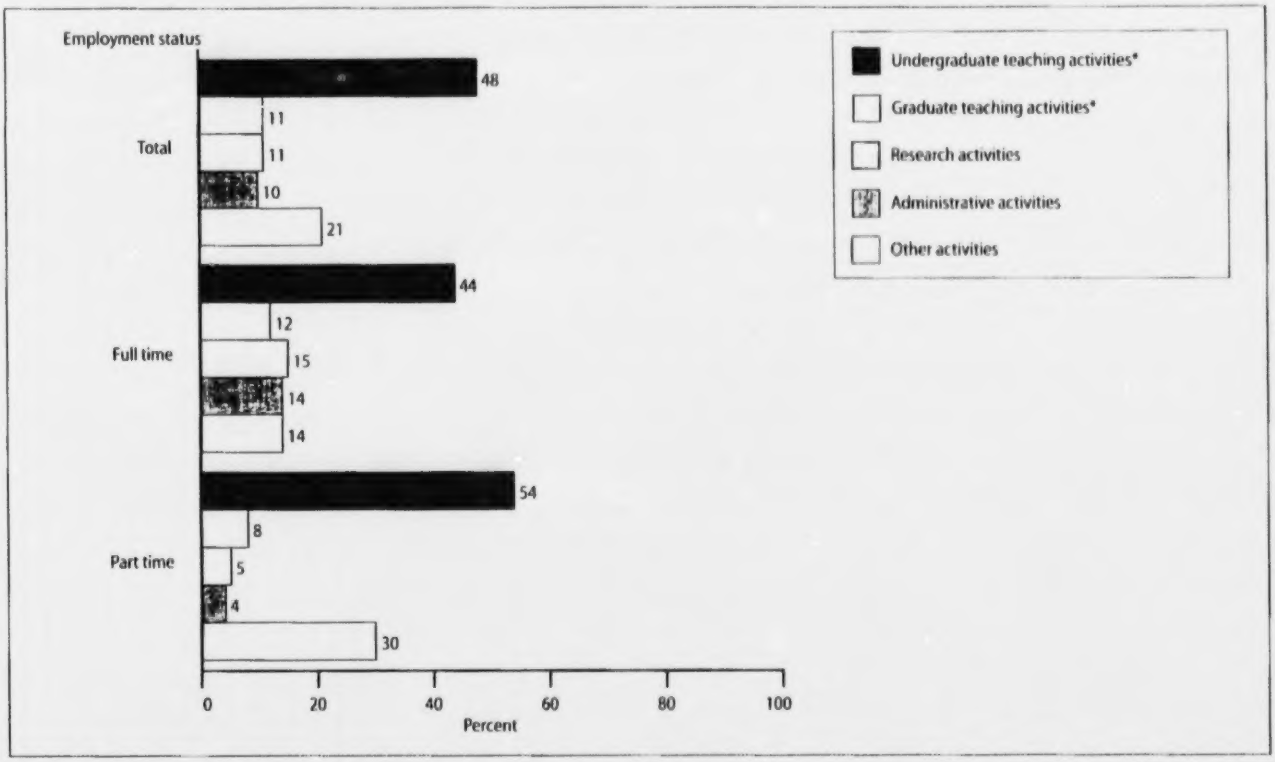
Teaching loads varied among those who did some undergraduate teaching

In general, instructional faculty and staff at 4-year doctoral institutions had lighter teaching loads than those at 4-year

---

[10] Undergraduate student classroom contact hours were calculated as follows: For each undergraduate class taught (a maximum of five classes could be reported by respondents), the number of hours per week spent teaching the class was multiplied by the number of students in the class. The products were then summed to obtain the total number of undergraduate student classroom contact hours.

Figure D.—Percentage distribution of time spent on various work activities by instructional faculty and staff, by employment status: Fall 1998



*"Teaching activities" were defined broadly in the survey and included teaching classes, grading papers, preparing courses, developing new curricula, advising or supervising students, supervising student teachers and interns, and working with student organizations or intramural athletics.

NOTE: This figure includes all instructional faculty and staff at Title IV degree-granting institutions. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

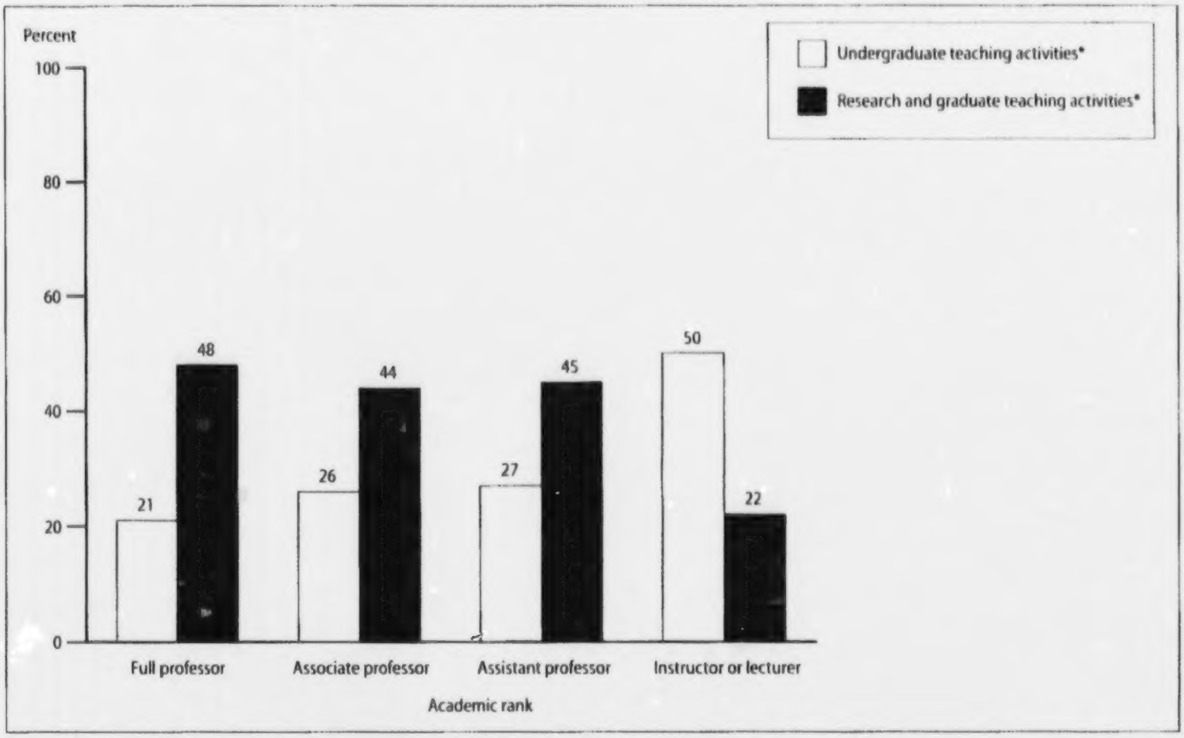
nondoctoral institutions, who in turn had lighter loads than those at 2-year institutions. At the same time, instructional faculty and staff at 4-year doctoral institutions were more likely than their colleagues at 4-year nondoctoral and 2-year institutions to have teaching assistants in some or all of their undergraduate classes.

With some exceptions, undergraduate teaching loads at 4-year institutions were inversely related to faculty's academic rank and tenure status. Instructional faculty and staff with higher academic ranks or tenure status (e.g., full professors or tenured faculty) generally had lighter teaching loads than those with lower academic ranks and tenure status (e.g., instructors/lecturers or non-tenure-track faculty). This relationship was more apparent at 4-year doctoral institutions than at 4-year nondoctoral institutions.

What Kinds of Teaching Practices Do Faculty Use in Their Undergraduate Classes?

Instructional faculty and staff with classroom teaching duties were asked about their use of various methods—lecture/discussion, seminar, lab/clinic, and apprenticeship/fieldwork—as primary teaching methods in their classes. According to their responses, the predominant teaching method for undergraduate classes was lecture/discussion. In fall 1998, 83 percent of instructional faculty and staff who taught undergraduate classes reported using lecture/discussion in at least one of their undergraduate classes (table C). Compared with lecture/discussion, faculty less frequently relied on other teaching methods as primary methods in at least one of their undergraduate classes: 21 percent of faculty used labs or clinics, 11 percent used seminars, and only 5 percent used fieldwork, such as internships and apprenticeships. This pattern held true among both full- and part-time faculty.

Figure E.—Percentage of time spent by full-time instructional faculty and staff at 4-year doctoral institutions on undergraduate teaching activities and on research and graduate teaching activities, by academic rank: Fall 1998



*"Teaching activities" were defined broadly in the survey and included teaching classes, grading papers, preparing courses, developing new curricula, advising or supervising students, supervising student teachers and interns, and working with student organizations or intramural athletics.

NOTE: This figure includes only full-time instructional faculty and staff at 4-year doctoral institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

Instructional faculty and staff also used a variety of methods to make assignments, assess students, and grade students' performance. In fall 1998, 60 percent of instructional faculty and staff who taught at least one undergraduate class indicated that they assigned term/research papers in some or all of their undergraduate classes; 44 percent asked students to evaluate each other's work; and 40 percent asked students to submit multiple drafts of written work. To assess students, 62 percent used short-answer midterm or final exams in some or all of their undergraduate classes; 60 percent used essay exams; and 58 percent used multiple-choice exams. To grade students' performance in some or all of their undergraduate classes, instructional faculty and staff were more likely to report using competency-based grading than grading on a curve (61 percent vs. 30 percent).

While lecture/discussion was popular, faculty's use of other instructional methods was related to their teaching disciplines. For example, at 4-year doctoral institutions, full-time faculty in the fine arts (32 percent) and health sciences (30 percent) were more likely than average (16 percent) to use labs/clinics as their primary instructional method in one or more of their undergraduate classes, while their colleagues in the humanities (4 percent), business (7 percent), and social sciences (7 percent) were less likely to do so. Full-time faculty in the health sciences (11 percent) were more likely than their colleagues in business, humanities, natural sciences, and social sciences (1 to 2 percent) to use apprenticeship/fieldwork as the primary method of teaching.

Conclusions

This report indicates that a majority of instructional faculty and staff were involved in some kinds of undergraduate teaching activities in fall 1998 and that most provided direct instruction to undergraduates. This finding held true in all types of institutions examined in this report. Furthermore,

Table B.—Undergraduate teaching loads of full-time instructional faculty and staff who taught at least one undergraduate class for credit, by type of institution, academic rank, and tenure status: Fall 1998

Type of institution, academic rank, and tenure status	Number of undergraduate classes taught for credit	Number of undergraduate classroom credit hours	Hours per week spent in the classroom teaching undergraduates	Number of undergraduates taught in the classroom	Number of undergraduate classroom contact hours[1]	Percentage who had teaching assistants in some/all undergraduate classes
Total	3.0	10.4	10.9	86.0	309.0	22.7
4-year doctoral	2.1	7.5	7.1	83.3	268.6	38.2
Academic rank[2]						
Full professor	1.9	6.2	5.9	83.9	256.7	43.8
Associate professor	2.1	6.9	6.9	75.5	233.0	35.0
Assistant professor	2.1	7.1	7.3	74.0	254.5	35.6
Instructor or lecturer	3.0	13.4	10.9	122.7	418.7	35.4
Tenure status						
Tenured	2.0	6.5	6.3	81.3	249.4	40.7
On tenure track	2.1	6.8	7.1	71.4	234.9	37.7
Not on tenure track	2.6	10.9	9.4	102.4	362.7	32.7
No tenure system	(#)	(#)	(#)	(#)	(#)	(#)
4-year nondoctoral	3.1	9.8	10.5	78.9	277.4	16.0
Academic rank[2]						
Full professor	2.9	9.1	9.8	75.9	259.8	18.0
Associate professor	3.1	10.0	10.5	81.0	287.2	13.9
Assistant professor	3.3	10.4	11.6	82.3	285.0	15.7
Instructor or lecturer	3.0	9.9	10.5	80.0	303.3	15.7
Tenure status						
Tenured	3.0	9.6	10.1	81.3	274.3	16.4
On tenure track	3.2	9.8	10.8	76.7	262.0	15.3
Not on tenure track	2.9	8.9	9.8	74.9	253.9	15.1
No tenure system	3.3	12.3	13.0	78.0	365.0	16.8
2-year	4.0	15.5	17.0	102.3	418.6	12.0
Academic rank[2]						
Full professor	4.0	14.6	15.7	108.5	415.5	12.5
Associate professor	3.8	14.2	15.2	101.9	399.4	12.1
Assistant professor	4.1	13.9	15.7	108.3	419.1	13.5
Instructor or lecturer	4.2	17.6	20.0	99.4	453.8	12.1
Tenure status						
Tenured	4.0	16.2	17.0	109.8	439.2	12.5
On tenure track	4.1	14.6	15.9	104.0	391.9	11.5
Not on tenure track	3.3	12.9	13.7	79.2	335.0	16.3
No tenure system	4.0	15.2	18.5	93.0	415.0	10.2

#Too small to report.

[1] For each for-credit undergraduate class taught (a maximum of five classes could be reported by respondents), the number of hours per week spent teaching the class was multiplied by the number of students in the class. The products were then summed to obtain the total number of undergraduate student classroom contact hours.

[2] Included in the total but not shown separately were those with other or no academic rank.

NOTE: This table includes only instructional faculty and staff who taught at least one undergraduate class for credit. Detailed information about classes could be reported for a maximum of five classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

Table C.—Of instructional faculty and staff who taught undergraduate classes for credit, percentage who used various teaching practices in at least one of their undergraduate classes, by employment status: Fall 1998

Instructional method	Total	Full time	Part time
Primary instructional method*			
Lecture/discussion	83.1	87.0	78.2
Seminar	11.2	13.4	8.5
Lab/clinic	21.4	23.5	18.9
Apprenticeship/fieldwork	4.7	5.4	3.8
Assignment method			
Student evaluations	44.2	44.8	43.5
Term/research papers	60.4	64.6	55.2
Multiple written drafts	39.5	42.7	35.5
Assessment method			
Multiple-choice exams	57.9	56.7	59.4
Short-answer exams	62.2	64.1	59.8
Essay exams	59.8	63.1	55.7
Grading methods			
Grading on a curve	29.7	31.8	27.2
Competency-based grading	60.6	59.8	61.6

*A maximum of five classes could be reported by respondents regarding the primary instructional method used in their classes.

NOTE: This table includes only instructional faculty and staff who taught undergraduate classes for credit.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99), "Faculty Survey."

according to institution reports, part-time faculty and teaching assistants were assigned a relatively small share of undergraduate credit hours (27 percent for part-time faculty and 1 percent for teaching assistants). Full-time faculty, with 71 percent of undergraduate credit hours, still constituted the major group in undergraduate teaching in fall 1998.

This report also reveals that a majority of full-time senior faculty members (i.e., full professors or tenured faculty), including those at 4-year doctoral institutions, taught at least one undergraduate class in fall 1998. About 40 percent of full-time senior faculty who had classroom instruction responsibilities at 4-year doctoral institutions reported teaching undergraduate classes exclusively.

There were, however, variations regarding those who taught undergraduates and how much they taught. First, whether or not faculty taught undergraduates was related to the role and mission of the institution. Instructional faculty and staff at 4-year doctoral institutions were less likely than their colleagues at 4-year nondoctoral and 2-year institutions to teach undergraduates and also had lighter teaching loads if they did teach. Second, within institutions, especially 4-year doctoral institutions, undergraduate teaching behaviors were somewhat related to faculty's seniority. Compared with junior faculty, senior faculty were less likely to teach undergraduates, and if they did, they typically had lighter teaching loads and also were more likely to have teaching assistants.

References

Boyer Commission on Educating Undergraduates in the Research University. (1998). *Reinventing Undergraduate Education: A Blueprint for America's Research Universities.* Stony Brook, NY: State University of New York.

Chen, X. (2000). *Instructional Faculty and Staff in Higher Education Institutions Who Taught Classes to Undergraduates: Fall 1992* (NCES 2000–186). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Cox, A.M. (2000, December 1). Study Shows Colleges' Dependence on Their Part-Time Instructors. *Chronicle of Higher Education, XLVII*(14): A12–A14.

Kerr, C. (1994). *Troubled Times for American Higher Education: The 1990s and Beyond.* New York: State University of New York Press.

Middaugh, M.F. (1999). How Much Do Faculty Really Teach? *Planning for Higher Education,* 27(2): 1–11.

Robin, W. (1999, April 9). Yale Relies on TAs and Adjuncts for Teaching. *Chronicle of Higher Education, XLV*(31): A15.

Townsend, R.B. (2000). *Who Is Teaching in U.S. College Classrooms?* The Coalition on the Academic Workforce.

Winston, G.C. (1994, September/October). The Decline in Undergraduate Teaching: Moral Failure or Market Pressure? *Change*, 26(5): 8–15.

Data source: 1999 National Study of Postsecondary Faculty (NSOPF:99).

For technical information, see the complete report:

Chen, X. (2002). *Teaching Undergraduates in U.S. Postsecondary Institutions: Fall 1998* (NCES 2002–209).

Author affiliation: X. Chen, MPR Associates, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–209), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

The Gender and Racial/Ethnic Composition of Postsecondary Instructional Faculty and Staff: 1992–98

Denise Glover and Basmat Parsad

This article was originally published as the Summary and Compendium Tables of the E.D. Tabs report of the same name. The sample survey data are from the NCES National Study of Postsecondary Faculty (NSOPF).

The literature examining gender and race/ethnicity issues for faculty in postsecondary education has relied largely on data from two national studies conducted by the U.S. Department of Education, National Center for Education Statistics (NCES): the 1988 and 1993 National Study of Postsecondary Faculty (NSOPF:88 and NSOPF:93), and the Integrated Postsecondary Education Data System "Fall Staff Survey" (IPEDS-S). These studies have consistently shown that the vast majority of full- and part-time faculty were White, non-Hispanic males (Kirshstein, Matheson, and Jing 1997; Roey and Rak-Skinner 1998; Nettles, Perna, and Bradburn 2000).

The purpose of this E.D. Tabs report is to describe how the gender and racial/ethnic composition of full- and part-time instructional faculty and staff has changed between the fall of 1992 and the fall of 1998. The report uses data from NSOPF:93 and NSOPF:99. In addition to this more focused report, two new NCES publications use data from NSOPF:99 to explore gender and racial/ethnic differences among faculty by several outcome variables such as salary, tenure status, and academic rank: *Gender and Racial/Ethnic Differences in Salary and Other Characteristics of Postsecondary Faculty: Fall 1998* (Bradburn and Sikora 2002) and *Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98* (Parsad and Glover 2002).

The data for this report are analyzed by institution level, type and control, and academic program.[1] The analyses are based on instructional faculty and staff; that is, faculty and staff with some for-credit teaching responsibilities. The first part of this summary focuses on changes in the gender composition of instructional faculty and staff, and the second part discusses changes in the racial/ethnic composition of instructional faculty and staff.[2]

Changes in the Composition of Faculty by Gender

Data from NSOPF:99 indicate that some changes occurred in the gender composition of both full- and part-time instructional faculty and staff between the fall of 1992 and the fall of 1998. Among full-time faculty over the 6-year period, the percentage who were female increased by 3 percent (from 33 percent to 36 percent) across all institutions (table 1A). Similar changes in the gender composition of part-time faculty occurred between the fall of 1992 and the fall of 1998 (table 1B). Across all institutions, there was an increase in the percentage of part-time faculty who were female (from 45 to 48 percent).

Gender changes by level of institution

Full-time faculty. Similar to the overall percentage of full-time instructional faculty who were female, the percentage of female full-time instructional faculty in 4-year institutions increased by 3 percent over the 6-year period, and the percentage in 2-year institutions increased by 5 percent (table 1A). In spite of this gain, the gender gap persisted among full-time faculty in 4-year institutions in the fall of 1998 (67 percent male vs. 33 percent female), as it did across all types of postsecondary institutions (64 percent male vs. 36 percent female). In 2-year institutions in the fall of 1998, there was no significant difference between the proportion of male and female full-time instructional faculty (50 percent each); whereas in the fall of 1992, full-time instructional faculty were more likely to be male than female (54 percent male vs. 46 percent female).

Part-time faculty. Several changes occurred in the gender composition of part-time instructional faculty over the 6-year period (table 1B). Across institutions, there was an increase in the percentage who were female (from 45 to 48 percent). The percentage of female part-time faculty who taught in 2-year institutions increased 5 percent (from 44 percent in 1992 to 49 percent in 1998). Mirroring the pattern that existed among male and female full-time faculty in 2-year institutions, the gender gap that existed between male and female part-time faculty in the fall of 1992 (56 percent male vs. 44 percent female) was no longer significant by the fall of 1998 (51 percent male vs. 49 percent female; table 1B).

---

[1] Institution types are based on the Carnegie classification and whether the institution is public or private not-for-profit. To improve readability, the phrase "not-for-profit" may be excluded when referring to "private not-for-profit" institutions. Private for-profit institutions are not part of the population for NSOPF.

[2] American Indian/Alaska Native respondents made up only 0.8 percent of the overall sample. Because the group is so small, analyses involving the comparison of this group to others, particularly if subdivided further, are inadvisable because the resulting standard errors are very large and very few apparent differences would achieve statistical significance. For this reason, this report excludes the American Indian/Alaska Native category from analysis, though estimates for this group are shown in the tables.

Gender changes by type and control of institution

Full-time faculty. The analysis of the gender composition of faculty between the fall of 1992 and the fall of 1998 by type and control of institution revealed that most, but not all, of the changes occurred in public institutions. The proportion of females among full-time faculty increased in public institutions (from 34 percent in 1992 to 37 percent in 1998; table 1A). The percentage of female faculty who taught full-time in public research, public comprehensive, public 2-year, and private doctoral institutions increased between the fall of 1992 and the fall of 1998 (table 2A). Over the 6-year period, the increase in the percentage of female faculty was larger for those teaching in private doctoral institutions than for female faculty teaching in either public comprehensive or public 2-year institutions.

Part-time faculty. Among part-time instructional faculty, the only gender changes that occurred over the 6-year period were an increase in the proportion of female faculty overall (from 45 to 48 percent) and an increase in the proportion of female faculty who taught in public 2-year institutions (from 43 to 48 percent; table 2B).

Gender changes by program area in 4-year institutions

Full-time faculty. Between the fall of 1992 and the fall of 1998, the percentage of female full-time faculty teaching in 4-year institutions across all program areas increased by 3 percent (from 30 to 33 percent; table 3A). For example, over this 6-year period, there was an increase in the percentage of female faculty teaching in the social sciences (from 26 to 30 percent). Although in the fall of 1998, male full-time faculty were more likely than female full-time faculty in 4-year institutions to teach in the natural sciences (79 percent vs. 21 percent), the proportion of female full-time faculty teaching in this area increased over the 6-year period.[3] In the fall of 1992, education was the only area in which there were no significant differences between male and female faculty. By the fall of 1998, female faculty outnumbered male faculty in this area.

Part-time faculty. Across all program areas, there were no significant changes in the proportion of male and female part-time faculty teaching at 4-year institutions between 1992 and 1998 (table 3B). In specific program areas, however, some gender changes did occur, with the proportion of female faculty increasing in some areas and decreasing in others. For example, in the fall of 1992, part-time male faculty were more likely than their female counterparts to teach in the fine arts. By the fall of 1998, no differences were detected between male and female faculty teaching in this program area. Conversely, in the fall of 1992, no differences were detected in the proportion of male and female faculty teaching in the social sciences. However, in the fall of 1998, part-time male faculty were more likely than their female counterparts to teach in the social sciences. The differences in the proportions of male and female part-time faculty teaching in the health sciences in both the fall of 1992 and the fall of 1998 were not significant.

Gender changes by program area in 2-year institutions

Full-time faculty. Consistent with the findings for 4-year institutions, the proportion of female faculty teaching full time in 2-year institutions increased in the natural sciences (from 33 to 42 percent), the social sciences (from 34 to 46 percent), and education (from 68 to 81 percent) between the fall of 1992 and the fall of 1998 (table 4A). While male faculty dominated most remaining areas in both years, female faculty were more likely than their male counterparts to teach in the areas of education and the health sciences in both 1992 and 1998.

Part-time faculty. Among part-time faculty teaching business in 2-year institutions, the percentage of female faculty increased between the fall of 1992 and the fall of 1998 (35 to 49 percent; table 4B). However, the percentage of female part-time faculty who taught engineering in 2-year institutions declined over the 6-year period (from 13 to 2 percent). There were more male than female part-time faculty teaching business and the social sciences in 2-year institutions in the fall of 1992. However, by the fall of 1998, no differences were detected between male and female part-time faculty teaching in these areas. Conversely, there were more female part-time faculty in 2-year institutions than male part-time faculty teaching in the humanities in the fall of 1992, but by the fall of 1998, there were no significant differences between male and female part-time faculty teaching in the humanities.

Changes in the Composition of Faculty by Race/Ethnicity

White, non-Hispanic faculty continued to hold the vast majority of full-time positions in postsecondary institutions (87 percent in 1992 and 85 percent in 1998; table 5A). The only identifiable change overall was in the percentage of Hispanic full-time faculty across all institutions, which increased between the fall of 1992 and the fall of 1998.

---

[3] The apparent change in the proportion of female faculty teaching in the field of engineering between the fall of 1992 and the fall of 1998 is not statistically significant.

Race/ethnicity changes by level of institution

Examining changes by institution level shows that there was an increase in the percentage of Hispanic full-time faculty teaching in 4-year institutions between the fall of 1992 and the fall of 1998 (table 5A). The percentage of White, non-Hispanic full-time faculty teaching in 4-year institutions declined between the fall of 1992 and the fall of 1998 (from 87 to 85 percent).

There were no changes in minority and White, non-Hispanic full-time faculty teaching in 2-year institutions between the fall of 1992 and the fall of 1998.

Race/ethnicity changes by type and control of institution

Examining changes by type and control of institution shows that there was an increase in the percentage of Hispanic full-time faculty teaching in public institutions over the 6-year period. There was a decline in the percentage of White, non-Hispanic full-time faculty teaching at public research institutions over the 6-year period (from 88 to 85 percent; table 6A). There were no significant differences between minority and White, non-Hispanic part-time faculty by type or control of institution (tables 5B and 6B).

Race/ethnicity changes by program area in 4-year institutions

Full-time faculty. In individual program areas, several changes occurred in the racial/ethnic composition of instructional faculty and staff in 4-year institutions. The percentage of Asian/Pacific Islander full-time faculty teaching in the social sciences increased between the fall of 1992 and the fall of 1998 (from 3 to 6 percent; table 7A). The percentage of Hispanic full-time faculty declined from 3 to 1 percent among those teaching in the fine arts, while Hispanic faculty increased from 4 to 6 percent among those teaching in the humanities. Over the 6-year period, there was a decline in the percentage of White, non-Hispanic full-time faculty who taught in the humanities and social sciences.

Part-time faculty. There were also several changes in individual program areas among part-time minority and White, non-Hispanic faculty and staff who taught in 4-year institutions. The percentage of Black, non-Hispanic part-time faculty decreased in two program areas—education and the fine arts—and increased in the social sciences (table 7B). The percentage of Hispanic part-time faculty in 4-year institutions who taught in "all other fields" (i.e., other than agriculture/home economics, business, education, engineering, fine arts, health sciences, humanities, natural sciences, and social sciences) increased during the 6-year period (from 2 to 5 percent), as did the percentage of White, non-Hispanic part-time faculty teaching in the fine arts (from 90 to 94 percent).

Race/ethnicity by program area in 2-year institutions

There were no significant differences between minority and White, non-Hispanic faculty who taught part time or full time in 2-year institutions between the fall of 1992 and the fall of 1998 (tables 8A and 8B).[4]

References

Bradburn, E.M., and Sikora, A.C. (2002). *Gender and Racial/Ethnic Differences in Salary and Other Characteristics of Postsecondary Faculty: Fall 1998* (NCES 2002–170). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Kirshstein, R.J., Matheson, N., and Jing, Z. (1997). *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and Fall 1992* (NCES 97–470). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Nettles, M., Perna, L., and Bradburn, E.M. (2000). *Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities* (NCES 2000–173). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Parsad, B., and Glover, D. (2002). *Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98* (NCES 2002–210). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Roey, S., and Rak-Skinner, R. (1998). *Fall Staff in Postsecondary Institutions: 1995* (NCES 98–228). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data source: The NCES 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

For technical information, see the complete report:

Glover, D., and Parsad, B. (2002). *The Gender and Racial/Ethnic Composition of Postsecondary Instructional Faculty and Staff: 1992–98* (NCES 2002–160).

Author affiliations: D. Glover and B. Parsad, Westat, Inc.

For questions about content, contact Linda J. Zimbler (linda.zimbler@ed.gov).

To obtain the complete report (NCES 2002–160), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

---

[4] Compared to 4-year institutions, estimates for 2-year institutions were based on small sample sizes and generally had larger standard errors. Thus, some differences that appear large for 2-year institutions were less likely to be statistically significant.

Table 1A.—Percentage distribution of full-time instructional faculty and staff, by gender and by level and control of institution: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Level and control of institution	1992	1998	1992	1998
All institutions*	66.8	63.7	33.2	36.3
All 4-year institutions	70.2	67.0	29.8	33.0
All 2-year institutions	54.4	49.6	45.6	50.4
All public institutions	66.5	62.8	33.5	37.2
All private not-for-profit institutions	67.5	65.9	32.5	34.1

*All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 1B.—Percentage distribution of part-time instructional faculty and staff, by gender and by level and control of institution: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Level and control of institution	1992	1998	1992	1998
All institutions*	55.4	52.2	44.6	47.9
All 4-year institutions	55.0	53.1	45.0	46.9
All 2-year institutions	55.9	50.9	44.2	49.1
All public institutions	55.3	51.0	44.7	49.0
All private not-for-profit institutions	55.8	54.7	44.2	45.3

*All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 2A.—Percentage distribution of full-time instructional faculty and staff, by gender and by type and control of institution: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Type and control of institution	1992	1998	1992	1998
All institutions[1]	66.8	63.7	33.2	36.3
Public research	76.7	70.5	23.3	29.5
Private not-for-profit research	69.1	73.9	30.9	26.2
Public doctoral[2]	69.9	66.7	30.1	33.3
Private not-for-profit doctoral[2]	76.4	63.6	23.6	36.4
Public comprehensive	66.1	61.7	33.9	38.3
Private not-for-profit comprehensive	64.9	63.3	35.1	36.7
Private not-for-profit liberal arts	61.1	62.2	38.9	37.9
Public 2-year	54.7	50.1	45.3	49.9
Other[3]	70.5	67.9	29.5	32.1

[1] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

[2] Includes institutions classified by the Carnegie Foundation as specialized medical schools and medical centers.

[3] Public liberal arts, private not-for-profit 2-year, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 2B.—Percentage distribution of part-time instructional faculty and staff, by gender and by type and control of institution: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Type and control of institution	1992	1998	1992	1998
All institutions[1]	55.4	52.2	44.6	47.9
Public research	56.7	55.2	43.3	44.8
Private not-for-profit research	58.7	60.3	41.3	39.8
Public doctoral[2]	55.4	49.6	44.6	50.4
Private not-for-profit doctoral[2]	63.1	58.6	36.9	41.4
Public comprehensive	49.0	46.5	51.0	53.5
Private not-for-profit comprehensive	56.4	59.1	43.6	40.9
Private not-for-profit liberal arts	46.6	44.0	53.4	56.1
Public 2-year	56.6	51.8	43.4	48.2
Other[3]	56.0	54.3	44.0	45.8

[1] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

[2] Includes institutions classified by the Carnegie Foundation as specialized medical schools and medical centers.

[3] Public liberal arts, private not-for-profit 2-year, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 3A.—Percentage distribution of full-time instructional faculty and staff in 4-year institutions, by gender and by program area: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Program area	1992	1998	1992	1998
All program areas in 4-year institutions	70.2	67.0	29.8	33.0
Agriculture/home economics	77.3	81.8	22.7	18.2
Business	76.4	73.2	23.6	26.9
Education	52.7	45.9	47.3	54.1
Engineering	94.2	90.8	5.8	9.2
Fine arts	67.3	68.4	32.7	31.6
Health sciences	58.5	57.5	41.5	42.5
Humanities	62.2	58.8	37.8	41.2
Natural sciences	83.3	79.2	16.7	20.8
Social sciences	73.9	69.7	26.1	30.3
All other fields	68.4	66.6	31.6	33.4

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 3B.—Percentage distribution of part-time instructional faculty and staff in 4-year institutions, by gender and by program area: Fall 1992 and fall 1998

	Gender			
	Male		Female	
Program area	1992	1998	1992	1998
All program areas in 4-year institutions	55.0	53.1	45.0	46.9
Agriculture/home economics	(#)	(#)	(#)	(#)
Business	75.0	70.3	25.0	29.7
Education	35.6	33.0	64.4	67.0
Engineering	95.9	94.8	4.1	5.2
Fine arts	55.0	47.5	45.0	52.5
Health sciences	51.3	48.0	48.7	52.0
Humanities	40.8	41.3	59.2	58.7
Natural sciences	68.7	64.4	31.3	35.6
Social sciences	53.7	59.7	46.3	40.3
All other fields	56.8	59.8	43.2	40.3

#Too small to report.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 4A.—Percentage distribution of full-time instructional faculty and staff in 2-year institutions, by gender and by program area: Fall 1992 and fall 1998

Program area	Gender			
	Male		Female	
	1992	1998	1992	1998
All program areas in 2-year institutions	54.4	49.6	45.6	50.4
Agriculture/home economics	63.8	73.9	36.2	26.1
Business	49.1	43.1	50.9	56.9
Education	32.4	19.5	67.6	80.5
Engineering	92.6	90.3	7.4	9.7
Fine arts	65.4	69.1	34.6	30.9
Health sciences	15.0	10.1	85.0	89.9
Humanities	48.8	45.7	51.2	54.3
Natural sciences	67.4	58.3	32.6	41.7
Social sciences	65.7	54.5	34.3	45.5
Vocational training	86.6	84.1	13.4	15.9
All other fields	55.7	51.4	44.3	48.6

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 4B.—Percentage distribution of part-time instructional faculty and staff in 2-year institutions, by gender and by program area: Fall 1992 and fall 1998

Program area	Gender			
	Male		Female	
	1992	1998	1992	1998
All program areas in 2-year institutions	55.9	50.9	44.2	49.1
Agriculture/home economics	(#)	(#)	(#)	(#)
Business	65.3	50.6	34.7	49.4
Education	26.7	16.0	73.3	84.0
Engineering	87.1	97.6	12.9	2.4
Fine arts	46.3	50.6	53.7	49.4
Health sciences	27.5	28.6	72.5	71.4
Humanities	41.2	47.5	58.8	52.5
Natural sciences	67.3	61.6	32.7	38.4
Social sciences	61.8	48.4	38.2	51.6
Vocational training	87.1	85.5	12.9	14.5
All other fields	58.1	48.1	41.9	51.9

#Too small to report.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 5A.—Percentage distribution of full-time instructional faculty and staff, by race/ethnicity and by level and control of institution: Fall 1992 and fall 1998

	Race/ethnicity[1]				
Level and control of institution and year	American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All institutions[2]	0.7	5.8	5.1	3.3	85.1
All 4-year institutions	0.7	6.4	4.9	3.0	85.0
All 2-year institutions	0.7	3.4	5.8	4.5	85.6
All public institutions	0.7	6.2	5.1	3.7	84.4
All private not-for-profit institutions	0.7	4.9	5.0	2.5	86.9
1992					
All institutions[2]	0.5	5.2	5.2	2.6	86.5
All 4-year institutions	0.3	5.8	4.9	2.2	86.8
All 2-year institutions	1.0	3.4	6.2	4.0	85.4
All public institutions	0.6	5.3	5.4	2.9	85.9
All private not-for-profit institutions	0.3	5.2	4.7	2.0	87.8

[1] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

[2] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 5B.—Percentage distribution of part-time instructional faculty and staff, by race/ethnicity and by level and control of institution: Fall 1992 and fall 1998

	Race/ethnicity[1]				
Level and control of institution and year	American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All institutions[2]	1.0	3.2	4.5	3.7	87.6
All 4-year institutions	0.9	3.8	4.0	3.0	88.2
All 2-year institutions	1.0	2.3	5.3	4.7	86.7
All public institutions	1.2	3.1	4.7	4.2	86.7
All private not-for-profit institutions	0.3	3.2	4.2	2.6	89.7
1992					
All institutions[2]	0.6	3.2	4.8	3.0	88.4
All 4-year institutions	0.4	3.7	5.1	2.3	88.6
All 2-year institutions	0.9	2.7	4.5	3.8	88.1
All public institutions	0.6	3.5	4.7	3.5	87.6
All private not-for-profit institutions	0.5	2.6	5.1	1.7	90.1

[1] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

[2] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 6A.—Percentage distribution of full-time instructional faculty and staff, by race/ethnicity and by type and control of institution: Fall 1992 and fall 1998

	Race/ethnicity[1]				
Type and control of institution and year	American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All institutions[2]	0.7	5.8	5.1	3.3	85.1
Public research	0.5	8.5	3.2	3.4	84.5
Private not-for-profit research	0.2	7.0	3.7	3.5	85.6
Public doctoral[3]	1.3	6.0	3.9	3.0	85.8
Private not-for-profit doctoral[3]	0.7	9.2	4.4	3.9	81.8
Public comprehensive	0.5	5.9	7.4	3.6	82.6
Private not-for-profit comprehensive	1.2	3.7	4.5	2.7	87.8
Private not-for-profit liberal arts	1.1	2.9	6.4	1.6	88.1
Public 2-year	0.8	3.4	6.0	4.6	85.3
Other[4]	0.6	4.6	7.1	1.3	86.4
1992					
All institutions[2]	0.5	5.2	5.2	2.6	86.5
Public research	0.1	6.9	2.8	2.2	88.0
Private not-for-profit research	0.2	9.0	5.0	2.1	83.7
Public doctoral[3]	0.8	6.1	3.1	2.5	87.6
Private not-for-profit doctoral[3]	0.2	7.1	4.9	3.7	84.1
Public comprehensive	0.5	5.1	9.1	2.6	82.7
Private not-for-profit comprehensive	0.2	3.3	3.5	1.6	91.3
Private not-for-profit liberal arts	0.5	2.8	5.4	1.3	90.0
Public 2-year	1.0	3.3	6.2	4.1	85.5
Other[4]	0.5	5.2	3.7	1.4	89.2

[1] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

[2] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

[3] Includes institutions classified by the Carnegie Foundation as specialized medical schools and medical centers.

[4] Public liberal arts, private not-for-profit 2-year, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 6B.—Percentage distribution of part-time instructional faculty and staff, by race/ethnicity and by type and control of institution: Fall 1992 and fall 1998

Type and control of institution and year	Race/ethnicity[1] American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All institutions[2]	1.0	3.2	4.5	3.7	87.6
Public research	1.9	4.6	2.9	3.5	87.1
Private not-for-profit research	(#)	2.5	3.3	4.3	89.9
Public doctoral[3]	2.3	3.1	3.6	3.1	87.9
Private not-for-profit doctoral[3]	0.4	7.1	3.4	2.3	86.8
Public comprehensive	1.2	5.5	4.1	3.8	85.5
Private not-for-profit comprehensive	0.5	1.7	2.7	2.0	93.1
Private not-for-profit liberal arts	0.2	3.2	6.9	3.1	86.7
Public 2-year	1.0	2.3	5.3	4.8	86.6
Other[4]	0.2	2.9	4.6	2.0	90.3
1992					
All institutions[2]	0.6	3.2	4.8	3.0	88.4
Public research	(#)	6.6	2.5	3.2	87.8
Private not-for-profit research	0.4	3.0	4.4	2.7	89.5
Public doctoral[3]	0.4	3.3	3.3	1.6	91.4
Private not-for-profit doctoral[3]	0.2	3.5	7.2	1.5	87.7
Public comprehensive	0.7	4.1	7.2	3.0	85.0
Private not-for-profit comprehensive	0.5	2.5	5.0	1.1	90.9
Private not-for-profit liberal arts	0.1	1.6	5.8	2.9	89.6
Public 2-year	0.8	2.7	4.6	4.0	88.0
Other[4]	1.1	3.8	3.2	1.1	90.8

#Too small to report.

[1] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

[2] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

[3] Includes institutions classified by the Carnegie Foundation as specialized medical schools and medical centers.

[4] Public liberal arts, private not-for-profit 2-year, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 7A.—Percentage distribution of full-time instructional faculty and staff in 4-year institutions, by race/ethnicity and by program area: Fall 1992 and fall 1998

Program area and year	Race/ethnicity* American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All program areas in 4-year institutions	0.7	6.4	4.9	3.0	85.0
Agriculture/home economics	1.2	3.5	4.1	1.5	89.8
Business	1.6	6.8	5.7	1.1	84.9
Education	1.0	3.1	8.3	3.1	84.6
Engineering	0.5	16.8	2.5	3.5	76.8
Fine arts	0.5	2.3	7.1	1.2	88.9
Health sciences	0.8	6.9	4.1	3.4	84.8
Humanities	0.3	4.8	4.8	6.2	83.8
Natural sciences	0.3	9.2	2.6	2.3	85.5
Social sciences	1.1	5.5	5.7	2.8	84.9
All other fields	0.9	3.1	6.3	2.2	87.6
1992					
All program areas in 4-year institutions	0.3	5.8	4.9	2.2	86.8
Agriculture/home economics	0.8	2.7	4.1	1.6	90.8
Business	0.6	5.9	3.7	1.4	88.5
Education	0.5	1.2	9.2	2.1	87.1
Engineering	0.2	18.9	3.0	2.5	75.4
Fine arts	0.5	2.6	6.1	2.7	88.2
Health sciences	0.2	6.6	4.6	2.3	86.4
Humanities	0.3	3.4	4.2	3.9	88.2
Natural sciences	0.3	9.1	3.6	1.7	85.3
Social sciences	0.4	3.2	5.5	2.2	88.6
All other fields	0.3	3.4	6.2	1.7	88.4

*In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 7B.—Percentage distribution of part-time instructional faculty and staff in 4-year institutions, by race/ethnicity and by program area: Fall 1992 and fall 1998

Program area and year	Race/ethnicity* American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All program areas in 4-year institutions	0.9	3.8	4.0	3.0	88.2
Agriculture/home economics	(#)	(#)	(#)	(#)	(#)
Business	(#)	2.9	3.3	0.6	93.2
Education	2.3	0.3	3.6	2.3	91.5
Engineering	(#)	10.5	7.0	7.9	74.6
Fine arts	0.7	1.0	2.2	1.7	94.4
Health sciences	1.9	5.0	2.1	1.8	89.3
Humanities	1.2	4.4	2.3	4.5	87.7
Natural sciences	(#)	5.5	7.7	1.8	85.0
Social sciences	0.9	1.7	8.6	3.9	84.9
All other fields	0.5	5.6	3.1	4.7	86.1
1992					
All program areas in 4-year institutions	0.4	3.7	5.1	2.3	88.6
Agriculture/home economics	(#)	(#)	(#)	(#)	(#)
Business	0.3	1.9	4.5	2.4	90.9
Education	1.0	1.0	7.0	1.2	89.9
Engineering	(#)	12.2	1.5	2.6	83.6
Fine arts	0.6	2.6	5.3	1.7	89.8
Health sciences	0.2	5.1	6.1	1.5	87.1
Humanities	0.1	2.6	4.1	4.7	88.5
Natural sciences	0.6	7.1	4.0	2.3	86.0
Social sciences	0.5	3.4	6.1	2.4	87.7
All other fields	0.2	2.4	5.7	1.6	90.2

#Too small to report.

*In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 8A.—Percentage distribution of full-time instructional faculty and staff in 2-year institutions, by race/ethnicity and by program area: Fall 1992 and fall 1998

Program area and year	Race/ethnicity[*] American Indian/ Alaska Native	Asian/Pacific Islander	Black, non-Hispanic	Hispanic	White, non-Hispanic
1998					
All program areas in 2-year institutions	0.7	3.4	5.8	4.5	85.6
Agriculture/home economics	(#)	(#)	4.0	0.8	95.3
Business	0.5	0.7	4.3	3.1	91.5
Education	(#)	6.9	10.6	4.4	78.1
Engineering	1.7	10.9	1.4	7.1	78.9
Fine arts	0.8	2.5	4.9	0.9	91.0
Health sciences	0.5	2.3	5.7	2.8	88.8
Humanities	0.5	4.3	3.7	7.5	84.0
Natural sciences	0.2	3.9	5.1	5.3	85.5
Social sciences	2.4	2.4	12.6	4.1	78.4
Vocational training	2.6	0.6	5.8	4.8	86.3
All other fields	0.1	4.6	5.8	2.8	86.6
1992					
All program areas in 2-year institutions	1.0	3.4	6.2	4.0	85.4
Agriculture/home economics	(#)	3.7	2.6	3.3	90.4
Business	2.0	2.0	5.2	2.2	88.6
Education	3.3	3.4	10.2	8.8	74.3
Engineering	2.8	6.1	2.2	5.9	83.0
Fine arts	0.6	3.2	4.1	1.2	90.9
Health sciences	0.3	3.7	9.9	2.3	83.9
Humanities	0.9	2.7	4.2	4.7	87.6
Natural sciences	0.7	5.4	3.6	2.7	87.7
Social sciences	0.6	3.5	9.4	5.4	81.1
Vocational training	0.7	2.0	3.4	4.4	89.6
All other fields	0.5	1.7	8.1	5.3	84.5

#Too small to report.

[*] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table 8B.—Percentage distribution of part-time instructional faculty and staff in 2-year institutions, by race/ethnicity and by program area: Fall 1992 and fall 1998

	Race/ethnicity[*]				
Program area and year	**American Indian/ Alaska Native**	**Asian/Pacific Islander**	**Black, non-Hispanic**	**Hispanic**	**White, non-Hispanic**
1998					
All program areas in 2-year institutions	1.0	2.3	5.3	4.7	86.7
Agriculture/home economics	(#)	(#)	(#)	(#)	(#)
Business	(#)	1.3	8.2	2.3	88.2
Education	0.8	0.8	8.7	6.3	83.4
Engineering	2.5	3.6	1.0	17.3	75.7
Fine arts	0.6	1.1	4.2	5.9	88.2
Health sciences	0.5	1.4	4.0	2.1	92.1
Humanities	1.5	2.9	3.1	7.2	85.4
Natural sciences	0.9	3.5	4.7	2.9	88.1
Social sciences	0.9	(#)	7.4	6.1	85.6
Vocational training	3.8	1.3	6.2	3.4	85.3
All other fields	(#)	3.1	6.1	3.0	87.8
1992					
All program areas in 2-year institutions	0.9	2.7	4.5	3.8	88.0
Agriculture/home economics	(#)	(#)	(#)	(#)	(#)
Business	0.8	2.3	5.7	2.9	88.3
Education	0.8	2.4	10.1	3.6	83.3
Engineering	4.3	2.0	2.5	1.2	90.1
Fine arts	0.6	1.9	4.8	4.2	88.4
Health sciences	1.2	1.8	4.8	1.8	90.3
Humanities	1.4	2.9	2.6	6.8	86.3
Natural sciences	0.8	4.0	4.2	2.6	88.4
Social sciences	0.6	2.6	7.4	3.0	86.4
Vocational training	0.1	1.3	3.5	6.3	88.8
All other fields	(#)	2.7	3.3	2.7	91.3

#Too small to report.

[*] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected (see the Technical Notes in the complete report for more information).

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Percentages may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98

Basmat Parsad and Denise Glover

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES National Study of Postsecondary Faculty (NSOPF).

In the recent past, postsecondary education has undergone dramatic changes that have required colleges and universities to examine new ways to efficiently manage their limited resources (Chronister and Baldwin 1999). These changes—including increased enrollments of nontraditional students, reductions in state funding, increased availability of distance education instruction and technologies, and increased use of contingent and contract personnel—have led to a reexamination of key faculty issues such as salary, scholarly productivity, teaching performance, and tenure.

The literature examining tenure concerns has relied largely on data from two national studies conducted by the U.S. Department of Education, National Center for Education Statistics (NCES): the National Study of Postsecondary Faculty (NSOPF), conducted in 1988, 1993, and 1999; and the Integrated Postsecondary Education Data System "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty Survey" (IPEDS-SA), conducted annually since 1987. Using data from NSOPF:93 and NSOPF:99, this report focuses on changes in the tenure status of full-time instructional faculty and staff at 2- and 4-year institutions between the fall of 1992 and the fall of 1998.[1] It analyzes changes in tenure status by level and control of institution, program area, and the faculty's academic rank, gender, and race/ethnicity. These analyses are based on instructional faculty and staff; that is, faculty and staff with some for-credit teaching responsibilities (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities).[2]

Tenure Status of Full-Time Instructional Faculty and Staff

The literature examining issues of tenure status at postsecondary institutions—some of it anecdotal—suggests a slight decline in the proportion of tenured faculty in recent years (Lee 1995; Chronister and Baldwin 1999; Kirshstein, Matheson, and Jing 1997). Data from the first two cycles of NSOPF, for instance, show that the proportion of full-time instructional faculty and staff with tenure at postsecondary institutions decreased from 58 percent in the fall of 1987 to 54 percent in the fall of 1992 (Kirshstein, Matheson, and Jing 1997).

More recent data from NSOPF:99 indicate that across all postsecondary institutions, 53 percent of full-time instructional faculty and staff were tenured in the fall of 1998 (figure A). Another 19 percent were on tenure track but not tenured. The remaining full-time faculty[3] either were not on a tenure track although the institution had a tenure system (18 percent), or they taught in an institution that did not have a tenure system (10 percent).[4]

Between the fall of 1992 and the fall of 1998, while the proportion of full-time instructional faculty and staff on tenure track decreased from 22 to 19 percent, the total percentage of faculty who either were not on a tenure track or worked at institutions without a tenure system increased from 24 to 28 percent (figure A). Thus, whereas there was no significant difference in the percentage of tenured faculty between 1992 and 1998, the opportunities for future tenure declined during that period.

Tenure Status by Institutional Type

The tenure status of full-time instructional faculty and staff was examined across 4-year and 2-year institutions, and public and private institutions. In both the fall of 1992 and the fall of 1998, full-time instructional faculty and staff who taught at 4-year institutions were more likely to be on tenure track than were those who taught at 2-year institutions (table A).

Between the fall of 1992 and the fall of 1998, 4-year institutions showed both a decrease in the proportion of full-time instructional faculty and staff who were on tenure

---

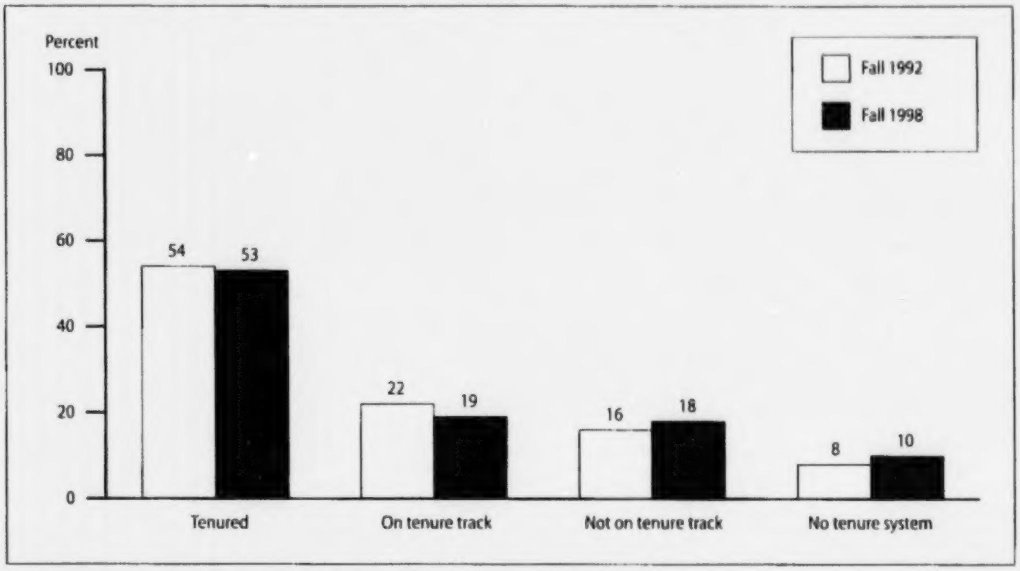
[1] NSOPF:99 was conducted in 1999 and asked faculty and instructional staff about their activities in the fall of 1998. NSOPF:93 was conducted in 1993 and asked faculty and staff about their activities in the fall of 1992.

[2] Instructional faculty and staff represented 88 percent of all postsecondary faculty and instructional staff in the fall of 1992 and 91 percent in the fall of 1998. Fifty-eight percent of instructional faculty and staff were employed full time in the fall of 1992, and 57 percent were employed full time in the fall of 1998.

[3] For brevity, this report sometimes uses the term "faculty" to refer to instructional faculty and staff.

[4] The increase in the percentage of full-time instructional faculty and staff who worked at institutions that did not have a tenure system (from 8 percent in 1992 to 10 percent in 1998) may be due, in part, to an overall increase in the proportion of postsecondary institutions that had no tenure systems in place for their faculty. Data from the "Institution Survey" of NSOPF indicate that 29 percent of postsecondary institutions did not have a tenure system in the fall of 1992 (Kirshstein, Matheson, and Jing 1996), compared with 34 percent in the fall of 1998 (Berger, Kirshstein, and Rowe 2001).

Figure A.—Percentage distribution of full-time instructional faculty and staff, by tenure status: Fall 1992 and fall 1998



NOTE: This figure includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Table A.—Percentage distribution of full-time instructional faculty and staff, by tenure status and level and control of institution: Fall 1992 and fall 1998

Level and control of institution, and year	Tenure status			
	Tenured	On tenure track	Not on tenure track	No tenure system
1998				
All institutions*	53.1	18.8	18.1	10.0
All 4-year institutions	53.9	19.7	20.7	5.7
All 2-year institutions	49.8	15.1	7.2	27.9
All public institutions	56.9	18.5	17.2	7.4
All private not-for-profit institutions	44.1	19.7	20.2	16.0
1992				
All institutions*	54.2	21.5	16.0	8.4
All 4-year institutions	55.0	23.4	17.5	4.1
All 2-year institutions	51.2	14.8	10.4	23.6
All public institutions	57.6	20.6	14.5	7.0
All private not-for-profit institutions	45.9	23.7	19.0	11.5

*All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

track, and an increase in the total percentage of faculty who either were not on a tenure track or worked at institutions without a tenure system (table A). Thus, while there were no significant differences in the proportion of *tenured* faculty between 1992 and 1998 for either 2- or 4-year institutions, the opportunities for future tenure declined at 4-year institutions.

In both the fall of 1992 and the fall of 1998, full-time instructional faculty and staff employed at public institutions were more likely than those at private institutions to have tenure (table A). Between 1992 and 1998, the proportion of faculty who were not on a tenure track at public institutions increased from 15 to 17 percent. Thus, as in 4-year institutions, the opportunities for future tenure declined at public institutions between 1992 and 1998.

Tenure Status by Gender

The gender gap in tenure among full-time instructional faculty and staff found in previous studies was also apparent in both 1992 and 1998. Across postsecondary institutions in the fall of 1992, full-time male instructional faculty and staff were more likely than their female counterparts to report having tenure (61 percent of male faculty vs. 40 percent of female faculty; figure B). In the fall of 1998, 60 percent of male faculty, compared to 42 percent of female faculty, reported that they had tenure.

Gender differences in tenure were apparent at both 4-year and 2-year institutions in the fall of 1992 and the fall of 1998. For instance, in the fall of 1998, 61 percent of male faculty compared to 40 percent of female faculty were tenured at 4-year institutions, and 53 percent of male faculty compared to 47 percent of female faculty were tenured at 2-year institutions (figure B).

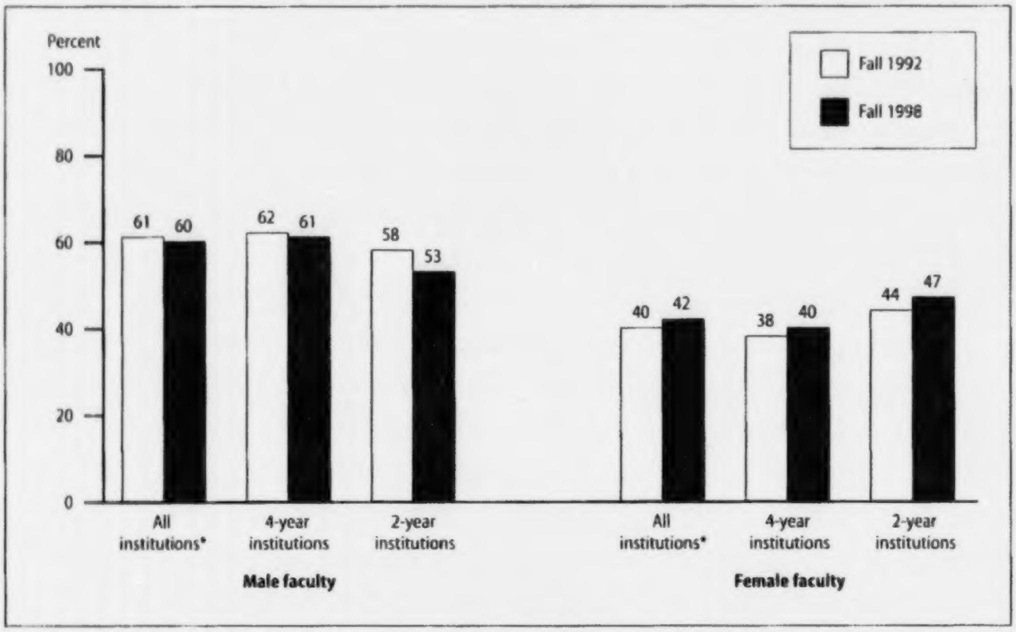
Tenure Status by Race/Ethnicity

Like previous studies, NSOPF:99 found racial/ethnic differences in tenure status among full-time instructional faculty and staff. The NSOPF data also indicate some changes between 1992 and 1998.[5]

---

[5] In 1998, although respondents were allowed to report more than one racial/ethnic category, very few respondents (about 1 percent) reported more than one category.

Figure B.—Percent of full-time instructional faculty and staff who were tenured, by gender and level of institution: Fall 1992 and fall 1998



*All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

NOTE: This figure includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

Among full-time instructional faculty and staff at postsecondary institutions in the fall of 1998, White, non-Hispanics were more likely than Black, non-Hispanics to report having tenure (54 vs. 44 percent; table B).[6] This pattern held for 4-year but not 2-year institutions.[7]

The distribution of tenure by race/ethnicity was somewhat different in the fall of 1998 than in the fall of 1992 (table B). Among full-time instructional faculty and staff in the fall of 1992, Whites were more likely to have tenure than were Asians/Pacific Islanders, Hispanics, and Blacks. By the fall of 1998, White faculty were more likely than Black faculty to have tenure, but not more likely than Asian/Pacific Islander and Hispanic faculty.

References

Berger, A., Kirshstein, R.J., and Rowe, E. (2001). *Institutional Policies and Practices: Results From the 1999 National Study of Postsecondary Faculty, Institution Survey* (NCES 2001–201). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Chronister, J.L., and Baldwin, R.G. (1999). Marginal or Mainstream? Full-Time Faculty Off the Tenure Track. *Liberal Education, 85*(4): 16–23.

Kirshstein, R.J., Matheson, N., and Jing, Z. (1996). *1993 National Study of Postsecondary Faculty (NSOPF:93): Institutional Policies and Practices Regarding Faculty in Higher Education* (NCES 97–080). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Kirshstein, R.J., Matheson, N., and Jing, Z. (1997). *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and Fall 1992* (NCES 97–470). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Lee, J. (1995). *Tenure*. Washington, DC: National Education Association.

Data source: The NCES 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

For technical information, see the complete report:

Parsad, B., and Glover, D. (2002). *Tenure Status of Postsecondary Instructional Faculty and Staff: 1992–98* (NCES 2002–210).

Author affiliations: B. Parsad and D. Glover, Westat, Inc.

For questions about content, contact Aurora D'Amico (aurora.d'amico@ed.gov).

To obtain the complete report (NCES 2002–210), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table B.—Percent of full-time instructional faculty and staff who were tenured, by level of institution and race/ethnicity: Fall 1992 and fall 1998

	1992			1998		
Race/ethnicity[1]	All institutions[2]	4-year institutions	2-year institutions	All institutions[2]	4-year institutions	2-year institutions
All full-time instructional faculty and staff	54.2	55.0	51.2	53.1	53.9	49.8
American Indian/Alaska Native	43.0	39.0	47.8	29.4	31.3	(#)
Asian/Pacific Islander	47.1	44.9	60.3	49.1	48.1	57.1
Black, non-Hispanic	43.5	40.4	52.4	43.9	42.9	47.7
Hispanic	44.9	40.7	53.3	48.5	43.7	62.4
White, non-Hispanic	55.6	56.9	50.8	54.3	55.5	49.3

#Too small to report.

[1] In 1998, respondents were allowed to report more than one racial/ethnic category; however, very few respondents (about 1 percent) reported more than one category. Those persons were placed into the largest minority racial/ethnic category they selected.

[2] All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

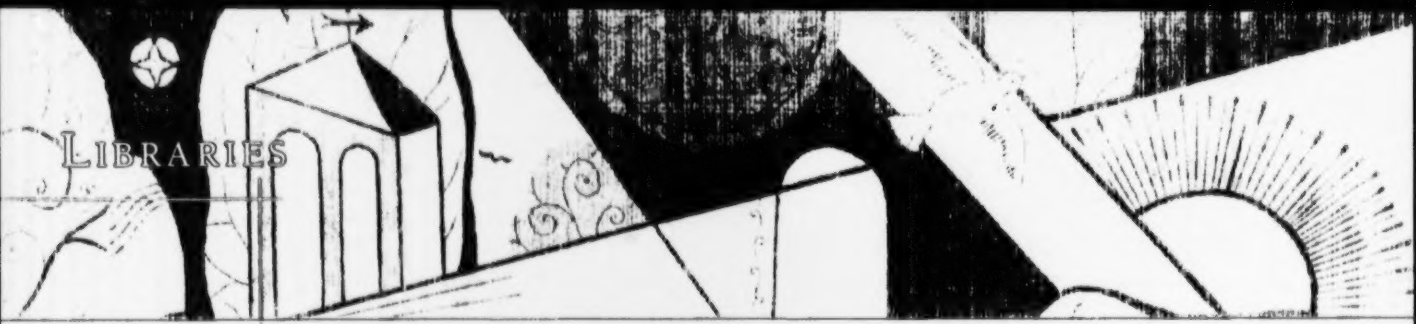
NOTE: This table includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

---

[6] American Indian/Alaska Native respondents made up only 0.8 percent of the overall sample. Because the group is so small, analyses involving the comparison of this group to others, particularly if subdivided further, are inadvisable because the resulting standard errors are very large and very few apparent differences would achieve statistical significance. For this reason, this report excludes the American Indian/Alaska Native category from analysis, though estimates for this group are shown in the tables. For brevity, White, non-Hispanic and Black, non-Hispanic are referred to as White and Black, respectively, throughout the report.

[7] Compared to 4-year institutions, estimates for 2-year institutions were based on small sample sizes and generally had large standard errors. Thus, some differences that appear large for 2-year institutions were less likely to be statistically significant.



Public Libraries in the United States: Fiscal Year 2000
Adrienne Chute, P. Elaine Kroe, Patricia Garner, Maria Polcari, and Cynthia Jo Ramsey 131

Public Libraries in the United States: Fiscal Year 2000

Adrienne Chute, P. Elaine Kroe, Patricia Garner, Maria Polcari,
and Cynthia Jo Ramsey

This article was originally published as the Introduction and Highlights of the E.D. Tabs report of the same name. The universe data are from the NCES Public Libraries Survey (PLS).

Introduction

The tables in this report summarize information about public libraries in the 50 states and the District of Columbia for state fiscal year (FY) 2000. (Data from four outlying areas—Guam, the Commonwealth of the Northern Mariana Islands, the Republic of Palau, and the U.S. Virgin Islands—are also included in the tables, but not in the table totals.) The data were collected through the Public Libraries Survey (PLS), conducted annually by the National Center for Education Statistics (NCES) through the Federal-State Cooperative System (FSCS) for Public Library Data. The FY 2000 survey is the 13th in the series.[1]

This report includes information about service measures such as access to the Internet and other electronic services, number of Internet terminals used by staff only, number of Internet terminals used by the general public, reference transactions, public service hours, interlibrary loans, circulation, library visits, children's program attendance, and circulation of children's materials. It also includes information about size of collection, staffing, operating income and expenditures, type of geographic service area, type of legal basis, type of administrative structure, and number and type of public library service outlets.[2] Data were imputed for nonresponding libraries.

Number of Public Libraries and Population of Legal Service Area

- There were 9,074 public libraries (administrative entities) in the 50 states and the District of Columbia in FY 2000.
- Ninety-seven percent[3] of the total population of the states and the District of Columbia were served by public libraries, either in legally established geographic service areas or in areas under contract.
- Eleven percent of the public libraries served 71 percent of the population of legally served areas in the United States; each of these public libraries had a legal service area population of 50,000 or more.

---

[1] Trend data from some of the earlier surveys are discussed in *Public Library Trends Analysis: 1992–1996* (Glover 2001), a Statistical Analysis Report released by NCES in the summer of 2001.

[2] See the glossary in the full report for definitions of the terms used in the report.

[3] This percentage was derived by dividing the total unduplicated population of legal service areas (including areas served under contract) in the United States by the sum of the official state total population estimates as reported by the 50 states and the District of Columbia. Also see *Data File, Public Use: Public Libraries Survey: Fiscal Year 2000* (NCES 2002–341), on the NCES web site.

Service Outlets

- In FY 2000, 81 percent of public libraries had one single direct service outlet (an outlet that provides service directly to the public). Nineteen percent had more than one direct service outlet. Types of direct service outlets include central library outlets, branch library outlets, and bookmobile outlets.
- A total of 1,501 public libraries (17 percent) had one or more branch library outlets, with a total of 7,383 branch outlets. The total number of central library outlets was 8,915. The total number of stationary outlets (central library outlets and branch library outlets) was 16,298. Eight percent of public libraries had one or more bookmobile outlets, with a total of 884 bookmobiles.

Legal Basis

- In FY 2000, 55 percent of public libraries were part of a municipal government, 11 percent were part of a county/parish, 10 percent were nonprofit association libraries or agency libraries, 9 percent were separate government units known as library districts, 5 percent had multijurisdictional legal basis under an intergovernmental agreement, 3 percent were part of a school district, and 1 percent were part of a city/county. Six percent reported their legal basis as "other."

Operating Income and Expenditures

Operating income

- In FY 2000, 77 percent of public libraries' total operating income of about $7.7 billion came from local sources, 13 percent from state sources, 1 percent from federal sources, and 9 percent from other sources such as monetary gifts and donations, interest, library fines, and fees.
- Nationwide, the average total per capita[4] operating income for public libraries was $28.96. Of that, $22.31 was from local sources, $3.70 from state sources, $0.21 from federal sources, and $2.73 from other sources.
- Per capita operating income from local sources was under $3.00 for 9 percent of public libraries, $3.00 to $14.99 for 39 percent of libraries, $15.00 to $29.99 for 32 percent of libraries, and $30.00 or more for 20 percent of libraries.

Operating expenditures

- Total operating expenditures for public libraries were $7 billion in FY 2000. Of this, 64 percent was expended for paid staff and 15 percent for the library collection.
- Thirty-two percent of public libraries had operating expenditures of less than $50,000, 41 percent expended $50,000 to $399,999, and 27 percent expended $400,000 or more.
- Nationwide, the average per capita operating expenditure for public libraries was $26.42. The highest average per capita operating expenditure was $47.40, and the lowest was $12.08.
- Expenditures for library collection materials in electronic format were 1 percent of total operating expenditures for public libraries. Expenditures for electronic access were 3 percent of total operating expenditures.

Staff

- Public libraries had a total of 130,102 paid full-time-equivalent (FTE) staff in FY 2000, or 12.23 paid FTE staff per 25,000 population. Of these, 23 percent, or 2.78 per 25,000 population, were librarians with the ALA-MLS;[5] 10 percent were librarians by title but did not have the ALA-MLS; and 67 percent were in other positions.
- Forty-four percent of all public libraries, or 4,034 libraries, had librarians with the ALA-MLS.

Collections

- Nationwide, public libraries had 761 million books and serial volumes in their collections in FY 2000, or 2.9 volumes per capita. By state, the number of volumes per capita ranged from 1.8 to 5.1.
- Public libraries nationwide had 32 million audio materials and 22 million video materials in their collections.
- Nationwide, public libraries provided 6.2 materials in electronic format per 1,000 population (e.g., CD-ROMs, magnetic tapes, and magnetic disks).

Library Services

Children's services

- Nationwide, circulation of children's materials was 625 million in FY 2000, or 36 percent of total circulation. Attendance at children's programs was 49 million.

---

[4] Per capita figures are based on the total unduplicated population of legal service areas (which excludes populations of unserved areas) in the 50 states and the District of Columbia, not on the state total population estimates.

[5] Librarians with master's degrees from programs of library and information studies accredited by the American Library Association.

Internet access and electronic services

- Nationwide, 95 percent of public libraries had access to the Internet. Eighty-nine percent of all public libraries made the Internet available to patrons directly or through a staff intermediary, 4 percent of public libraries made the Internet available to patrons through a staff intermediary only, and 2 percent of public libraries made the Internet available only to library staff.
- Internet terminals available for public use in public libraries nationwide numbered 99,453, or 1.9 per 5,000 population. The average number of Internet terminals per service outlet[6] available for public use was 5.8.
- Ninety-nine percent[7] of the unduplicated population of legal service areas had access to the Internet through their local public library.
- Nationwide, 85 percent of public libraries provided access to electronic services.[8]

Other services

- Total nationwide circulation of public library materials was 1.7 billion, or 6.4 materials circulated per capita. The highest circulation per capita was 12.8, and the lowest was 1.9.
- Nationwide, 16 million library materials were loaned by public libraries to other libraries.
- Nationwide, reference transactions in public libraries totaled 291 million, or 1.1 reference transactions per capita.
- Nationwide, library visits in public libraries totaled 1.1 billion, or 4.3 library visits per capita.

Reference

Glover, D. (2001). *Public Library Trends Analysis: Fiscal Years 1992–1996* (NCES 2001–324). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data source: The NCES Public Libraries Survey (PLS), fiscal year 2000.

For technical information, see the complete report:

Chute, A., Kroe, P.E., Garner, P., Polcari, M., and Ramsey, C.J. (2002). *Public Libraries in the United States: Fiscal Year 2000* (NCES 2002–344).

Author affiliations: A. Chute and P.E. Kroe, NCES; P. Garner, M. Polcari, and C.J. Ramsey, U.S. Census Bureau.

For questions about content, contact Adrienne Chute (adrienne.chute@ed.gov).

To obtain the complete report (NCES 2002–344), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

---

[6] The average was calculated by dividing the total number of Internet terminals available for public use by the total number of service outlets (central, branches, and bookmobiles).

[7] This percentage was derived by summing the unduplicated population of legal service areas for (1) all public libraries in which the Internet was used by patrons through a staff intermediary only and (2) all public libraries in which the Internet was used by patrons either directly or through a staff intermediary, and then dividing the total by the unduplicated population of legal service areas in the United States. Also see *Data File, Public-Use: Public Libraries Survey: Fiscal Year 2000* (NCES 2002–341), on the NCES web site.

[8] Access to electronic services refers to electronic services (e.g., bibliographic and full-text databases, multimedia products) provided by the library due to subscription, lease, license, consortial membership or agreement. It includes full-text serial subscriptions and electronic databases received by the library or an organization associated with the library.

CROSSCUTTING STATISTICS

The Condition of Education: 2002
National Center for Education Statistics 135

Projections of Education Statistics to 2012
Debra E. Gerald and William J. Hussar 144

The Condition of Education: 2002

This article was originally published as the Commissioner's Statement in the Compendium of the same name. The universe and sample survey data are from various studies carried out by NCES, as well as surveys conducted elsewhere, both within and outside of the federal government.

Introduction

Reliable data are critical in guiding efforts to improve education in America. When the original U.S. Department of Education was created in 1867, the law stated that it should "gather statistics and facts on the condition and progress of education in the United States and Territories." The National Center for Education Statistics (NCES) currently carries out this mission for the U.S. Department of Education through such work as *The Condition of Education*, a mandated report submitted to Congress on June 1st every year.

Drawing on numerous data sources, this annual report presents indicators of important developments and trends in American education. Recurrent themes underscored by the indicators include participation and persistence in education, student performance and other outcomes, the environment for learning, and societal support for education. In addition, this year's special analyses focus on private elementary and secondary schools and on nontraditional undergraduates (such as those who are financially independent or attend part time).

Participation in Education

Enrollments in the United States are growing at all levels of education, but for different reasons. At the early childhood level, growth is due to higher rates of enrollment; that is, larger percentages of 3- to 5-year-old children are enrolling in preschool, nursery school, or other early childhood education programs. At the elementary and secondary levels, growth is due to demographic changes, which are also making the student body more diverse. At the postsecondary level, high enrollment rates and population growth are combining to swell enrollments.

- Enrollment rates for 3- to 5-year-olds in early childhood education programs were higher in 2001 than in 1991. Black and White children enroll in early childhood education programs at higher rates than Hispanic children.

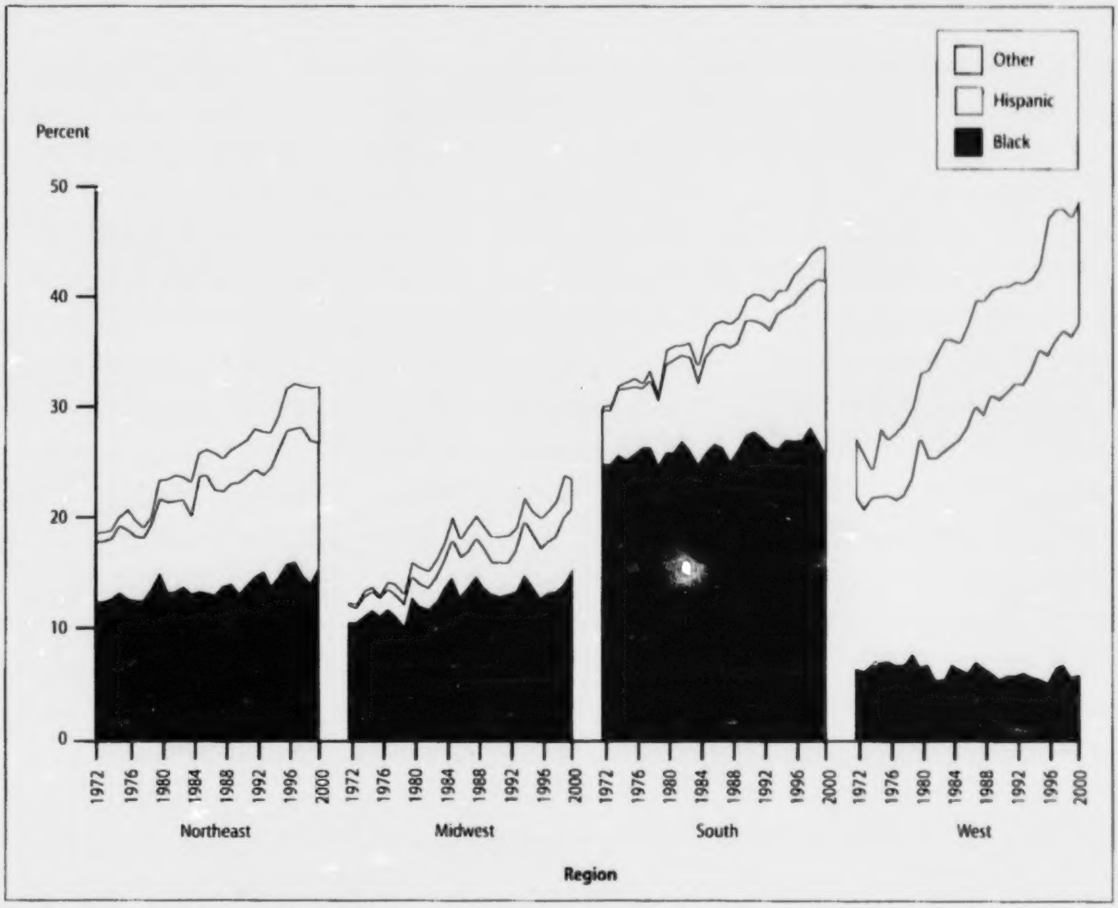
- Public elementary and secondary enrollment is projected to reach 47.4 million in 2002, and to increase through 2005, before decreasing slowly. The West will experience most of this increase.
- Hispanic students are the fastest growing student group in the nation's elementary and secondary schools (figure A).
- The school-age poverty rate decreased between 1994 and 2001.
- In a change from the enrollment patterns of the 1980s and 1990s, undergraduate enrollment during this decade is projected to increase at a faster rate in 4-year institutions than in 2-year institutions. Women's undergraduate enrollment is expected to continue increasing at a faster rate than men's.
- Graduate and first-professional enrollments grew rapidly during the 1970s, slowed or declined in the 1980s, and then began to increase again in the 1990s.

Learner Outcomes

At the elementary and secondary levels, students are performing better in some areas, but their performance has not changed or has declined in others. Students' performance in mathematics has improved somewhat over the past decade. Students' reading performance, on the other hand, remains unchanged. In addition, issues of equal educational opportunity and international competitiveness remain.

- Fourth-grade reading performance did not change significantly between 1992 and 2000. In each assessment year, female students scored higher than their male peers.

Figure A.—Percentage of public school students enrolled in grades K–12 who were minorities, by region: October 1972–2000



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 1972–2000. (Originally published on p. 45 of the complete report from which this article is excerpted.)

- The average reading scores of White students are higher than those of Black students at ages 9, 13, and 17. While differences in performance decreased between the early 1970s and the late 1980s, the gaps have remained relatively stable or increased slightly since then.
- U.S. 15-year-olds performed at the international average of 27 Organization for Economic Cooperation and Development (OECD) countries in reading literacy in 2000, scoring below the average of 3 countries (Canada, Finland, and New Zealand) and above the average of 4 OECD countries (Greece, Portugal, Luxembourg, and Mexico) (figure B).
- The mathematics performance of 4th- and 8th-graders increased steadily from 1990 to 2000, while the performance of 12th-graders increased from 1990 to 1996 but then declined between 1996 and 2000.
- Compared with students in low-poverty public schools, students in high-poverty public schools had lower achievement scores in 4th-grade mathematics in 2000 (figure C).
- The scores of both 4th- and 8th-graders in science did not change significantly between 1996 and 2000, while 12th-graders' scores declined slightly.
- In 1999, U.S. 8th-graders exceeded the international average of 38 countries in mathematics and science, but performed lower than their peers in 14 countries.
- In 1999, U.S. 9th-graders scored significantly higher than the international average of 28 countries in overall civic knowledge and outperformed students in all other participating countries in civic skills.
- The better educated a person is, the more likely that person is to report being in "very good" or "excellent" health, regardless of income.
- The median earnings of young adults with at least a bachelor's degree increased over the past 20 years relative to their counterparts who have no more than a high school diploma.

Student Effort and Educational Progress

The effort students devote to their studies and the choices they make as they proceed through the educational system contribute to their academic success. Students' attendance, interest, and attention to their studies affect how well they perform at each level and their access to and success at the next level.

- More than half of students in the 8th, 10th, and 12th grades missed 1 or more days of school in a 4-week period in spring 2000 due to illness, skipping school,

Figure B.—Average reading literacy score of 15-year-olds, by country: 2000

Average score relative to the United States	Country and score					
Significantly higher	Finland	546	Canada	534	New Zealand	529
Not significantly different	Australia	528	Iceland	507	Spain	493
	Ireland	527	France	505	Czech Republic	492
	Korea, Republic of	525	Norway	505	Italy	487
	United Kingdom	523	**United States**	**504**	Germany	484
	Japan	522	*International average*[1]	*500*	Liechtenstein[2]	483
	Sweden	516	Denmark	497	Hungary	480
	Austria	507	Switzerland	494	Poland	479
	Belgium	507				
Significantly lower	Greece	474	Latvia[2]	458	Mexico	422
	Portugal	470	Luxembourg	441	Brazil[2]	396
	Russian Federation[2]	462				

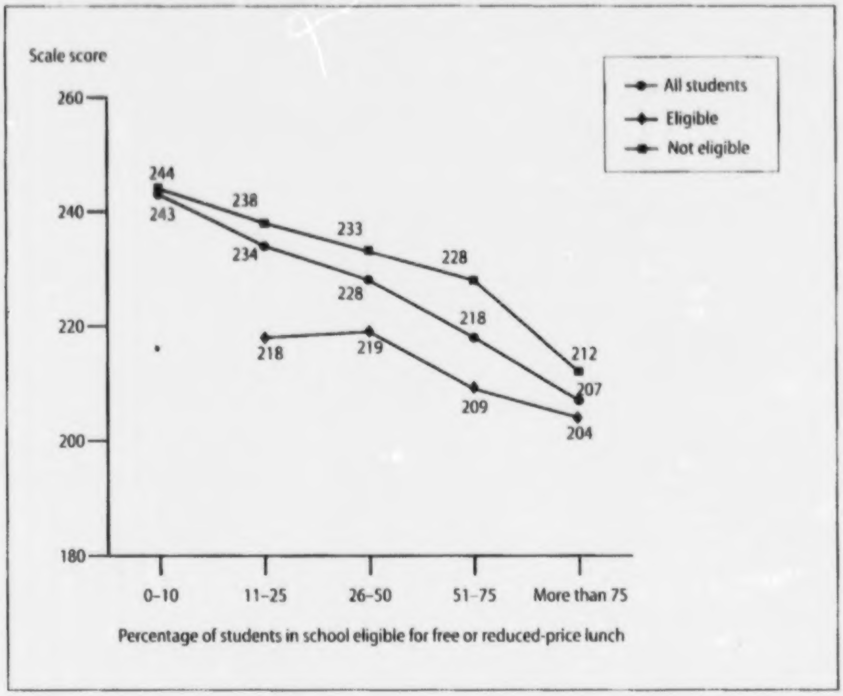
[1] The international average is the average of Organization for Economic Cooperation and Development (OECD) countries only and thus excludes Brazil, Latvia, Liechtenstein, and the Russian Federation.

[2] Non-OECD country.

SOURCE: U.S. Department of Education, National Center for Education Statistics (2001). *Outcomes of Learning: Results From the 2000 Program for International Student Assessment of 15-Year-Olds in Reading, Mathematics, and Science Literacy* (NCES 2002–115). (Previously published on p. 56 of the complete report from which this article is excerpted.)

BEST COPY AVAILABLE

Figure C.—Average scale score of public school students in 4th-grade mathematics, by the percentage of students in the school eligible for free or reduced-price lunch and whether the student was eligible for free or reduced-price lunch: 2000



•For the eligible student category, there were too few sample cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), unpublished data provided by the Educational Testing Service, 2000. (Originally published on p. 58 of the complete report from which this article is excerpted.)

or other reasons. Moreover, about 13–14 percent of 8th- and 10th-graders were absent more than 5 days—or one-fourth of all school days—in this period.

- Over the past two decades, 12th-graders have reported a declining interest in school, while the effort they apply to their schoolwork has generally shown no measurable change over the past decade.
- One indicator of the failure to persist in school is the "status dropout rate" (i.e., the percentage of young people who have not completed high school and are not enrolled in school). Status dropout rates for Whites and Blacks ages 16–24 have declined since 1972, but have remained relatively stable since the early 1990s. The rates for Hispanic youths have not decreased and remain higher than those for other racial/ethnic groups.
- Rates of immediate college enrollment upon completing high school have increased since 1972. Rates of immediate enrollment for females have increased faster than those for males.
- College enrollment rates of high school graduates vary with family income, but among those who were college qualified and took the steps necessary for admission, low-income students were as likely as middle-income students to enroll in a 4-year institution.
- About one-third of young people at risk for low educational attainment enrolled in a 4-year college within 2 years of their high school graduation despite being at risk.
- Rigorous academic preparation in high school narrowed the gap in postsecondary persistence between students whose parents did not go to college and their peers who have at least one parent with a bachelor's degree.
- Among low- and middle-income students at public 2- and 4-year postsecondary institutions, recipients

of Pell Grants persisted at the same rate as nonrecipients despite being less prepared academically and more likely to have certain risk factors.

- The percentages of 25- to 29-year-olds who have completed high school, some college, or a bachelor's degree or higher have increased since 1971, but disparities in attainment among racial/ethnic groups remain.

Contexts of Elementary and Secondary Education

Student performance in elementary and secondary schools is shaped by student coursework, the quality of the teaching staff, and the climate for learning within schools.

- The percentage of high school graduates who completed advanced coursework in science and mathematics in high school increased between 1982 and 1998.
- Asian/Pacific Islanders and Whites completed advanced levels of science and mathematics coursework in high school at higher rates than did their peers in other racial/ethnic groups. Private school graduates also completed such coursework at higher rates than did public school graduates.
- The rates at which students of almost all disability types are being served in regular classrooms have increased over the past decade.
- Both the proportion of children enrolled in public schools chosen by their parents and the proportion enrolled in private, not church-related schools increased between 1993 and 1999. Differences in parental choice of schools are related to race/ethnicity, household income, and region. The percentage of children in grades 3–12 with parents who reported they were "very satisfied" with their children's school decreased from 56 percent in 1993 to 53 percent in 1999.
- In 2000–01, there were 1,993 public charter schools. Public charter schools were more likely than traditional public schools to be located in urban settings, to enroll a higher proportion of Black and Hispanic students, and to employ teachers with fewer years of teaching experience.
- College students with low college entrance examination scores are more likely than students with high scores to prepare to become teachers and to become teachers upon graduation. They are also more likely than their high-scoring peers to remain in the teaching profession.
- About half of secondary school teachers majored in an academic subject, and about 4 out of 10 majored in an academic subject area in education.
- Teachers who participated in more than 8 hours per year of professional development activity in a single area of development were more likely than teachers who participated in 1–8 hours to report that the activity improved their teaching "a lot." However, most teachers participated in such an activity only 1–8 hours.
- Victimization affects all types of students. However, students who reported gangs or guns at their schools were more likely to report victimization than students who did not report these conditions.

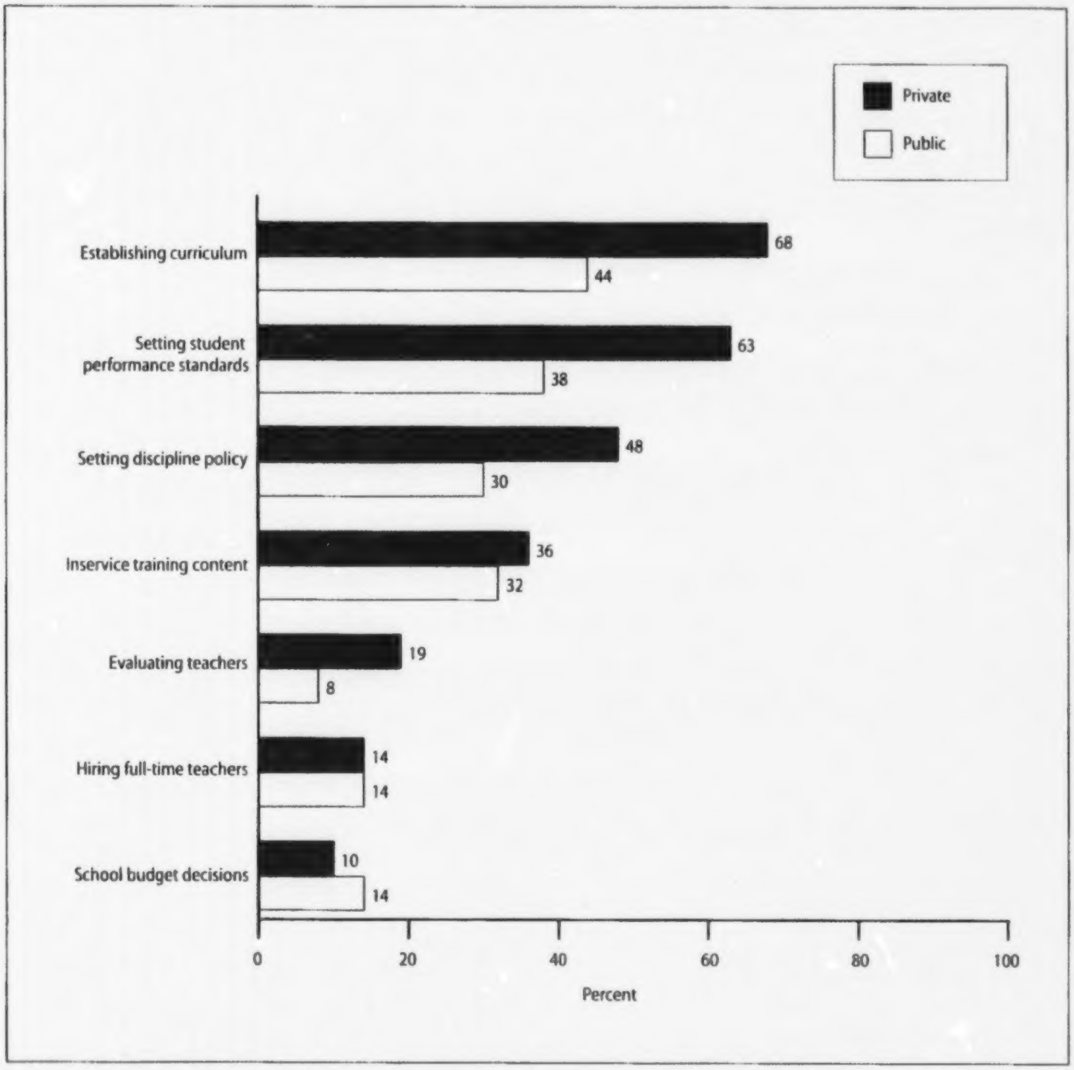
Special Focus on Private Schools

One of this year's special analyses (*Private Schools: A Brief Portrait*) examines private schools, how they differ by type, and how they differ from public schools. Comparisons between the public and private sectors—and within the private sector—of elementary, secondary, and combined schools suggest that these schools vary greatly in their size, composition, climate, and goals. In 1999–2000, private schools accounted for 24 percent of all K–12 schools, 10 percent of all students, and 12 percent of all full-time-equivalent teachers. Private schools have maintained their share of total school enrollments throughout recent decades at roughly 10–11 percent.

- Private schools are smaller and the sector as a whole has lower proportions of Black and Hispanic students than the public school sector. The proportion of Asian/Pacific Islander students in the public sector is not measurably different from that in the private sector. Catholic schools tend to be larger and to enroll more minority students than other private schools.
- Principals at the three main types of private schools (Catholic, other religious, and nonsectarian) differed in their top priorities for their school; overall, however, private school principals most often included academic excellence and religious development, as well as basic literacy skills in core areas like reading and mathematics, and self-discipline. Public school principals most often cited basic literacy skills and academic excellence, as well as self-discipline.

- Teachers in private schools reported that they have wide latitude in deciding how and what to teach, as well as a fairly strong influence on many school policies (figure D). Nonsectarian schools, in particular, may give teachers considerable authority to shape their course content and materials. In contrast to their counterparts in public schools, the majority of teachers in the three types of private schools—particularly teachers in non-Catholic religious schools—strongly agreed with positive statements about staff cooperation and school management.
- Private high schools require more academic courses for graduation, and their graduates are more likely than graduates of public schools to have completed advanced courses in mathematics, science, and foreign language.

Figure D.—Percentage of teachers who thought they had a lot of influence on various school policies, by sector: 1999–2000



SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public, Charter, and Private Teacher Questionnaires," 1999–2000. (Originally published as figure 5 on p. 13 of the complete report from which this article is excerpted.)

- Private school students also score higher, on average, on achievement tests in reading, mathematics, and science than do their public school counterparts.
- Students who attended private schools in the 8th grade in 1988 were twice as likely as those who attended public schools to have completed a bachelor's degree or higher by their mid-20s.

Contexts of Postsecondary Education

The postsecondary education system encompasses various types of institutions, both public and private. Although issues of student access, persistence, and attainment have been predominant concerns in postsecondary education, the contexts in which postsecondary education takes place matter as well. The diversity of the undergraduate and graduate populations, the various educational missions and learning environments of colleges and universities, the courses that students take, and the ways in which colleges and universities use faculty and other resources all are important aspects of the contexts of postsecondary education.

- Undergraduates are diverse in their demographic, enrollment, and employment characteristics. Minority students represented nearly a third of all undergraduates in 1999–2000, up from about a quarter in 1989–90. The percentage of students working full time during the school year rose 7 percentage points during this period, and the percentage not working rose 2 points.
- Undergraduates who worked but identified themselves primarily as students were more likely to report that working negatively affected their academic performance as the number of hours worked per week increased.
- Despite the proliferation of distance education offerings during the 1990s, only 8 percent of undergraduates and 12 percent of master's students enrolled in these classes in 1999–2000.
- Over the past decade, the number of associate's degrees awarded has increased at a faster rate than the number of bachelor's degrees.
- During the 1990s, women advanced in their status as faculty members in several areas, including salary. At the end of the decade, however, a gap in salary between male and female faculty remained.

Special Focus on Nontraditional Undergraduates

A second special analysis this year (*Nontraditional Undergraduates*) examines the undergraduate enrollment of students who have characteristics not traditionally associated with undergraduates. The undergraduate population today is quite different than it was over a generation ago in 1970. Indeed, the "traditional" postsecondary student—one who is dependent, attends full time until completing a bachelor's degree, and works no more than part time while enrolled—is no longer typical.

- Fully three-quarters of all undergraduates in 1999–2000 had at least one "nontraditional" characteristic (i.e., they delayed their enrollment in postsecondary education, attended part time for at least part of the academic year, worked full time while enrolled, were considered financially independent for purposes of determining financial aid eligibility, had dependents other than a spouse, were single parents, or did not have a high school diploma) (table A).
- The most highly nontraditional students (those with four or more nontraditional characteristics) were concentrated in public 2-year institutions, with about two-thirds enrolled in such institutions.
- Two-thirds of highly nontraditional students perceived their primary role to be that of an employee, suggesting that school did not have first claim on their time and energy. Among highly nontraditional students who considered themselves primarily students, many found that work limited their class and scheduling options.
- Among beginning postsecondary students seeking associate's and bachelor's degrees, those with any nontraditional characteristics were more likely than traditional students to leave without earning a degree. They were at greater risk than traditional students of dropping out in their first year.

Societal Support for Learning

Society and its members—families, individuals, employers, and governmental and private organizations—provide support for education in various ways, such as spending time on learning activities, providing encouragement to learners, and investing money in education.

Table A.—Percentage of all undergraduates with each nontraditional characteristic, by type of institution, and percentage of nontraditional undergraduates with each nontraditional characteristic, by nontraditional characteristic and status: 1999–2000

Type of institution, nontraditional characteristic, and nontraditional status	Financially independent	Attended part time	Delayed enrollment	Worked full time	Had dependents	Single parent	No high school diploma*
				All undergraduates			
Total	50.9	47.9	45.5	39.3	26.9	13.3	6.5
Type of institution							
Public 2-year	63.7	69.5	58.7	53.8	34.5	16.4	9.8
Public 4-year	37.6	33.3	31.5	25.5	17.6	9.2	2.4
Private not-for-profit 4-year	36.7	27.6	34.0	28.5	18.8	8.6	3.2
Private for-profit	72.9	21.5	67.8	40.8	44.3	26.6	15.6
				Nontraditional undergraduates			
Nontraditional characteristic							
Any nontraditional characteristic	67.8	63.8	60.9	54.0	35.8	17.7	8.7
Financially independent	100	66.2	66.4	57.3	52.8	26.1	10.1
Attended part time	70.3	100	58.8	62.0	36.2	15.7	8.0
Delayed enrollment	74.1	61.7	100	52.0	39.7	19.6	9.2
Worked full time	72.0	73.3	48.4	100	40.7	16.6	7.1
Had dependents	100	64.5	67.6	58.2	100	49.4	11.6
Single parent	100	56.6	68.0	55.4	100	100	14.1
No high school diploma	78.7	58.6	76.1	46.2	47.6	28.7	100
Nontraditional status							
Minimally nontraditional	15.2	36.2	22.8	22.8	0	0	2.2
Moderately nontraditional	68.0	63.8	42.2	51.5	18.7	3.8	5.2
Highly nontraditional	99.4	80.4	76.3	75.0	79.6	38.6	15.1

*Student did not finish high school or completed with a GED or certificate of completion.

NOTE: Total row and nontraditional characteristic and status rows include students at types of institutions not shown here. Students may appear in more than one column. Percentages in the "minimally nontraditional" row (only one nontraditional characteristic) do not sum to 100.0 because of rounding. "Moderately nontraditional" means having two or three nontraditional characteristics, and "highly nontraditional" means having four or more such characteristics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

- In 1999, half of all children in grades 3–12 had parents who reported that they were "very satisfied" with their child's school, their child's teachers, the school's academic standards, and the school's order and discipline.
- In 1998, U.S. expenditures on primary and secondary education ranked high compared with the expenditures of other countries. U.S. spending on postsecondary education ranked highest among advanced industrialized countries.
- At the elementary and secondary levels, public revenue raised for education per student has increased since the mid-1970s, while total public revenue expended for education as a percentage of total personal income has generally decreased. At the postsecondary level, public revenue per student has fluctuated within a narrow band since the mid-1970s, while total public revenue as a percentage of total personal income has generally declined.
- Traditional differences in the proportion of local funding to state and federal funding generally persist across the United States, though a substantial decrease in local funding occurred in the Midwest, where local funding dropped from 55 percent in 1993–94 to 48 percent in 1994–95. This decrease was offset by a large increase in state funding.
- The "net price" of college attendance—the amount that students pay with their own or borrowed funds after taking grants received into account—varies by the type of institution that students attend and by family income. In 1999–2000, the average net price of college attendance ranged from $7,600 at public 2-year institutions to $17,800 at private not-for-profit 4-year institutions.

Conclusion

Trends in the condition of American education show a mixed picture. While high school graduates have increased their enrollment in more advanced courses since the early

1980s, the performance of 12th-graders in mathematics and science has stagnated in recent years. International comparisons suggest that U.S. 9th-graders have relatively good civic knowledge, and even better civic skills, but that the reading literacy scores of U.S. 15-year-olds are similar to the international average among advanced industrialized countries. International comparisons in mathematics and science also show mixed results, with U.S. 8th-graders performing above the international average of 38 countries but below the average of their counterparts in 14 countries.

In addition, gaps persist in academic performance and educational participation among different racial/ethnic groups, socioeconomic groups, and school sectors. The gaps between the average reading scores of White and Black students ages 9, 13, and 17 have remained stable or increased since the late 1980s. In mathematics, high poverty levels in schools are associated with low student achievement in the 4th grade. While the percentages of dropouts in the population of White and Black young adults have declined, the percentage for Hispanics has remained higher than that of other groups and remains high. Finally, private school students in general scored higher than public school students in reading, mathematics, and science.

A growing and increasingly diverse population of elementary and secondary students continues to heighten the challenge of providing high-quality instruction and equal educational opportunities. In addition, school absence among middle and high school students and the declining academic interest of high school seniors are just a few of the challenges that educators face. At the postsecondary level, institutions must prepare for the record numbers of enrollments expected over the next decades.

NCES produces an array of reports each month on findings about the U.S. education system. *The Condition of Education* represents the culmination of a yearlong project. In the coming months, many other reports and surveys informing us about education will be released, including studies of elementary and secondary school staffing, the participation of children in before- and after-school programs, a follow-up look at the status of the 8th-grade class of 1988 14 years later, school crime, early childhood education, full- and half-day kindergarten, children's computer use at home and at school, and adult learning. As with the indicators presented in this volume, these surveys and reports will continue to inform Americans about the condition of education.

Data sources: Many studies from NCES and other sources.

For technical information, see the complete report:

National Center for Education Statistics. (2002). *The Condition of Education: 2002* (NCES 2002–025).

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain the complete report (NCES 2002–025), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Projections of Education Statistics to 2012

Debra E. Gerald and William J. Hussar

This article was originally published as the Foreword and Highlights of the Compendium report of the same name. The universe and sample survey data are from many sources, both government and private, which are listed at the end of this article.

Introduction

Projections of Education Statistics to 2012 is the 31st report in a series begun in 1964. This report provides revisions of projections shown in *Projections of Education Statistics to 2011* (Gerald and Hussar 2001) and includes statistics on elementary and secondary schools and degree-granting institutions. Included are projections of enrollments and graduates to the year 2012. Projections of teachers and expenditures are not included in this edition, but they are available in *Projections of Education Statistics to 2011*.

In addition to projections at the national level, the report includes projections of public elementary and secondary school enrollment and public high school graduates to the year 2012 at the state level. These projections were produced by the National Center for Education Statistics (NCES) to provide researchers, policy analysts, and others with state-level projections developed using a consistent methodology. They are not intended to supplant detailed projections prepared in individual states.

Methodology

Assumptions regarding the population and the economy are the key factors underlying the projections of education statistics. The projections do not reflect changes in national, state, or local education policies that may affect enrollment levels.

The full report contains a methodology section describing models and assumptions used to develop the national and state-level projections. The enrollment models use enrollment data and population estimates and projections from NCES and the U.S. Census Bureau. The models are based on the mathematical projection of past data patterns into the future. The models also use projections of economic variables from the company DRI-WEFA, Inc., an economic forecasting service.

The population projections are not based on the 2000 census data. Projections of national population data based on the 2000 census are not scheduled for release until fall 2002. The projections presented in this report reflect revisions influenced by the 1990 census, incorporation of the 2000 estimates, and the latest assumptions for the fertility rate, internal migration, net immigration, and the mortality rate.

Most of the projections of education statistics include three alternatives, based on different assumptions about demographic and economic growth paths. Although the first alternative set of projections (middle alternative) in each table is deemed to represent the most likely projections, the low and high alternatives provide a reasonable range of outcomes.

Summary information

Highlights of projected changes in key education statistics are presented below. A convenient summary of the projections in this report is available in a pocket-sized booklet, *Pocket Projections: Projections of Education Statistics to 2012* (Hussar and Gerald 2002).

Highlights of Changes Between 2000 and 2012

Public and private elementary and secondary enrollment—1 percent increase

Total public and private elementary and secondary enrollment is projected to increase from 53.2 million in 2000 to 53.9 million in 2005 (table A). Then total enrollment is projected to decrease to 53.5 million in 2010, followed by an increase to 53.7 million in 2012, resulting in an overall increase of 1 percent from 2000.

Public and private K–8 enrollment—less than 1 percent decrease

Total public and private K–8 enrollment is projected to remain around 38.4 million between 2000 and 2002 (table A). Then total K–8 enrollment is projected to decrease to 37.7 million in 2008, followed by an increase to 38.3 million in 2012, resulting in an overall decrease of less than 1 percent from 2000.

Public and private 9–12 enrollment—4 percent increase

Total public and private 9–12 enrollment is projected to increase from 14.8 million in 2000 to 16.1 million in 2007 (table A). Then total 9–12 enrollment is projected to decrease to 15.4 million in 2012, resulting in an overall increase of 4 percent from 2000.

Table A.—Enrollment in grades K–8 and 9–12 of elementary and secondary schools, by control of institution, with projections: Fall 1987 to fall 2012

(In thousands)

	Total			Public			Private		
Year	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12
1987[2]	45,487	32,165	13,323	40,008	27,933	12,076	5,479	4,232	1,247
1988[2]	45,430	32,537	12,893	40,188	28,501	11,687	5,242	4,036	1,206
1989[3]	45,741	33,187	12,554	40,543	29,152	11,390	5,198	4,035	1,163
1990[4]	46,451	33,962	12,488	41,217	29,878	11,338	5,234	4,084	1,150
1991[3]	47,322	34,619	12,703	42,047	30,506	11,541	5,275	4,113	1,162
1992[4]	48,145	35,264	12,882	42,823	31,088	11,735	5,322	4,175	1,147
1993[3]	48,813	35,719	13,093	43,465	31,504	11,961	5,348	4,215	1,132
1994[4]	49,609	36,233	13,376	44,111	31,898	12,213	5,498	4,335	1,163
1995[3]	50,502	36,806	13,697	44,840	32,341	12,500	5,662	4,465	1,197
1996[4]	51,375	37,316	14,060	45,611	32,764	12,847	5,764	4,551	1,213
1997[3]	51,968	37,696	14,272	46,127	33,073	13,054	5,841	4,623	1,218
1998[4]	52,476	38,048	14,427	46,539	33,346	13,193	5,937	4,702	1,235
1999[3]	52,875	38,254	14,623	46,857	33,489	13,369	6,018	4,765	1,254
2000[4]	53,167	38,387	14,780	47,223	33,709	13,514	5,944	4,678	1,266
				Projected					
2001	53,369	38,414	14,954	47,424	33,746	13,678	5,944	4,668	1,276
2002	53,566	38,416	15,150	47,613	33,756	13,857	5,953	4,660	1,292
2003	53,700	38,320	15,380	47,746	33,677	14,069	5,954	4,644	1,310
2004	53,800	38,120	15,680	47,846	33,500	14,346	5,954	4,620	1,334
2005	53,866	37,917	15,948	47,912	33,315	14,597	5,954	4,603	1,351
2006	53,862	37,765	16,097	47,912	33,174	14,739	5,950	4,592	1,358
2007	53,789	37,666	16,123	47,847	33,078	14,768	5,942	4,588	1,355
2008	53,652	37,661	15,991	47,719	33,069	14,649	5,933	4,592	1,341
2009	53,538	37,726	15,812	47,607	33,122	14,485	5,931	4,604	1,327
2010	53,498	37,869	15,629	47,561	33,244	14,317	5,937	4,625	1,313
2011	53,538	38,039	15,500	47,586	33,389	14,197	5,952	4,649	1,303
2012	53,692	38,258	15,434	47,715	33,578	14,137	5,977	4,680	1,297

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[3] Private school numbers are from the Private School Universe Survey.

[4] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics: *Key Statistics on Public Elementary and Secondary Schools;* Common Core of Data (CCD) surveys; 1985 Private School Survey; Private School Universe Survey (PSS), various years; and National Elementary and Secondary Enrollment Model. (Originally published as table 1 on p.12 of the complete report from which this article is excerpted.)

Public school enrollment in grades 10, 11, and 12—more than 4 percent increase

Between 2000 and 2012, public school enrollment in grade 10 is projected to increase by 4 percent. Over the same period, enrollments in grades 11 and 12 are expected to increase 5 and 8 percent, respectively.

Public school enrollment in grades 1, 8, and 9—less than 4 percent increase

Between 2000 and 2012, public school enrollment in grade 1 is projected to increase 2 percent. Over the same period, enrollments in grades 8 and 9 are projected to increase 2 and 3 percent, respectively.

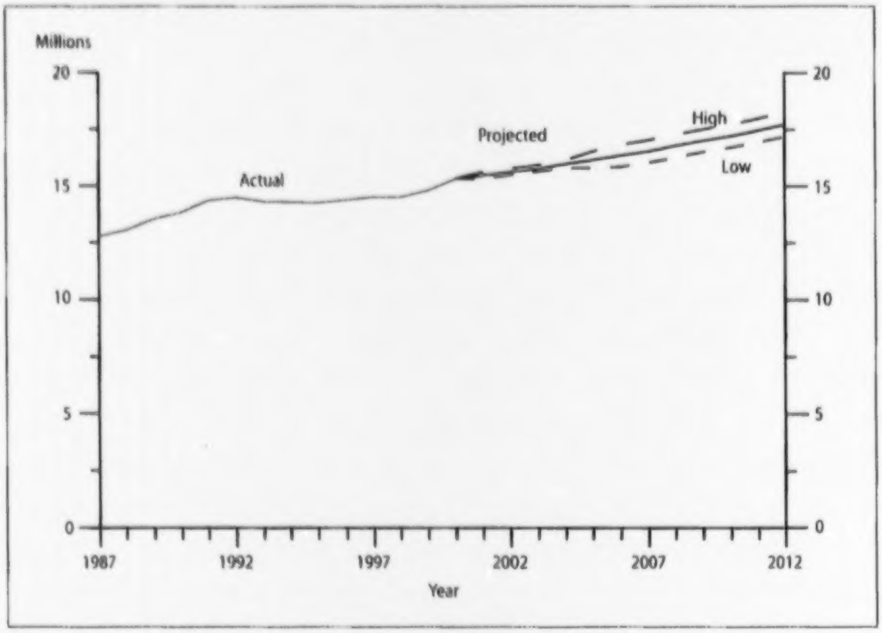
Public school enrollment in the Western region—9 percent increase

Between 2000 and 2012, public elementary and secondary enrollment is projected to increase 9 percent in the West and 1 percent in the South. Over the same period, in the Northeast and Midwest, enrollment is projected to decrease 5 and 4 percent, respectively.

Enrollment in degree-granting institutions—15 percent increase

Enrollment in degree-granting postsecondary institutions is projected to increase from 15.3 million in 2000 to 17.7 million by 2012, an increase of 15 percent. A 12 percent increase is projected under the low alternative and a 19 percent increase is projected under the high alternative (figure A).

Figure A.—Enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (Originally published as figure 15 on p. 29 of the complete report from which this article is excerpted.)

High school graduates—9 percent increase

Graduates from public and private high schools are projected to increase from 2.8 million in 1999–2000 to 3.1 million by 2011–12, an increase of 9 percent. This increase reflects the projected rise in the 18-year-old population.

Public high school graduates in the Western region—17 percent increase

Between 1999–2000 and 2011–12, the number of public high school graduates is projected to increase 17 percent in the West and 11 percent in the South. Graduates in the Northeast and the Midwest are projected to increase 8 and 1 percent, respectively, over the same period.

Bachelor's degrees—16 percent increase

The number of bachelor's degrees is expected to increase from 1.2 million in 1999–2000 to 1.4 million by 2011–12, an increase of 16 percent.

References

Gerald, D.E., and Hussar, W.J. (2001). *Projections of Education Statistics to 2011* (NCES 2001–083). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Hussar, W.J., and Gerald, D.E. (2002). *Pocket Projections: Projections of Education Statistics to 2012* (NCES 2002–033). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Data sources:

NCES: Common Core of Data (CCD); Private School Universe Survey (PSS); *Key Statistics on Public Elementary and Secondary Schools;* National Elementary and Secondary Enrollment Model; State Public Elementary and Secondary Enrollment Model; "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS); Enrollment in Degree-Granting Institutions Model; *Public and Private Elementary and Secondary Education Statistics, Early Estimates; Projections of Education Statistics,* various years; National Elementary and Secondary High School Graduates Model; State Public High School Graduates Model; "Degrees and Other Formal Awards Conferred" surveys; and Earned Degrees Conferred Model.

U.S. Bureau of the Census: *Current Population Reports;* "National Population Estimates," December 2001; and "Annual Projections of Total Resident Population," 1999–2100.

Other: DRI-WEFA, Inc. (an economic forecasting service).

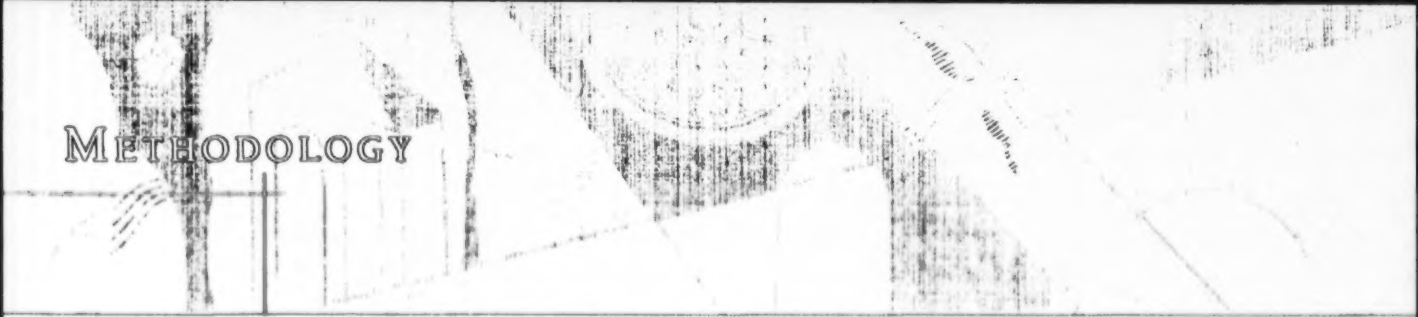
For technical information, see the complete report:

Gerald, D.E., and Hussar, W.J. (2002). *Projections of Education Statistics to 2012* (NCES 2002–030).

Author affiliations: D.E. Gerald and W.J. Hussar, NCES.

For questions about content, contact Debra E. Gerald (debra.gerald@ed.gov) or William J. Hussar (william.hussar@ed.gov).

To obtain the complete report (NCES 2002–030), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).



METHODOLOGY

Beginning Postsecondary Students Longitudinal Study: 1996–2001 (BPS:1996/2001) Methodology Report
Jennifer S. Wine, Ruth E. Heuer, Sara C. Wheeless, Talbric L. Francis, Jeff W. Franklin, and Kristin M. Dudley 147

1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report
Sameer Y. Abraham, Darby Miller Steiger, Margrethe Montgomery, Brian D. Kuhr, Roger Tourangeau, Bob Montgomery, and Manas Chattopadhyay 150

Beginning Postsecondary Students Longitudinal Study: 1996–2001 (BPS:1996/2001) Methodology Report

Jennifer S. Wine, Ruth E. Heuer, Sara C. Wheeless, Talbric L. Francis, Jeff W. Franklin, and Kristin M. Dudley

This article was originally published as the Executive Summary of the Technical Report of the same name. The sample survey data are from the NCES Beginning Postsecondary Students Longitudinal Study (BPS).

Introduction

The 1996 Beginning Postsecondary Students Longitudinal Study (BPS:96), sponsored by the National Center for Education Statistics (NCES) in the U.S. Department of Education, follows a cohort of students who started their postsecondary education during the 1995–96 academic year. These students were first interviewed during 1996 as part of the 1995–96 National Postsecondary Student Aid Study (NPSAS:96). In 1998, 2 academic years after the cohort's entry into postsecondary education, the first follow-up interview (BPS:96/98) was conducted. BPS:1996/2001 is the second and final follow-up interview with the BPS:96 cohort. This interview, which took place in 2001, focused on persistence and attainment among students enrolled in 4-year institutions and employment among students no longer enrolled. This report describes the procedures and results of the full-scale implementation of BPS:1996/2001.

Sample Design

The respondent universe for the BPS:96/98 and BPS:1996/2001 interviews consisted of all students who began their postsecondary education for the first time during the 1995–96 academic year at any postsecondary institution in the United States or Puerto Rico. The students sampled were first-time beginning postsecondary students who attended postsecondary institutions eligible for inclusion in NPSAS:96 and who were themselves eligible for NPSAS:96.

All BPS:1996/2001 sample members had completed either the NPSAS:96 interview, the BPS:96/98 interview, or both interviews. At the beginning of BPS:96/98, over 12,400 students had been identified as potentially both eligible for NPSAS:96 and first-time beginners (i.e., eligible for the BPS interviews). Of those students, about 10,350 were located and completed a BPS:96/98 interview, with almost 10,300 of them determined to be both NPSAS and BPS eligible. The majority of the BPS:1996/2001 sample consisted of these BPS:96/98 respondents. However, the BPS:96/98 respondents were supplemented by a subsample of about 100 BPS:96/98 nonrespondents. The BPS:1996/2001 sample was representative of the students who first began postsecondary education in 1995–96.

Instrumentation

All sample members were eligible for participation in BPS:1996/2001, having had their eligibility determined as part of either the NPSAS:96 or the BPS:96/98 interview. Consequently, the BPS:1996/2001 interview focused exclusively on activities since the last interview. The first section of the instrument collected information on postsecondary enrollment and degree attainment. A second section collected information on undergraduate education experiences. A third section, on postbaccalaureate education experiences, was included for those sample members who had completed a bachelor's degree since the last interview. A fourth section collected extensive employment information for the current job if no degree had been earned since the last interview. For those who had earned a degree, employment information was collected for the current job and for the first job held after degree completion, if different. The final section updated the sample members' family, financial, and disability status and their civic participation since the last interview.

Data Collection Design and Outcomes

Interviews were conducted using computer-assisted telephone interviewing (CATI). Cases for sample members for whom no locating information was available were sent directly to a specialized tracing unit for intensive tracing. The tracing unit was also used for intensive tracing once all contact information for sample members was exhausted during attempts to conduct the telephone interview.

In addition to telephone interviewing and intensive tracing, field locating and interviewing were available for certain cases that fell into any one of 30 geographic clusters developed according to the Zip Code of the last known address for the sample member. Potential field cases were those in which CATI and intensive tracing failed to locate sample members or in which sample members initially refused to participate in the interview. Computer-assisted personal interviewing (CAPI) software was available on laptop computers for field interviewing.

Training

Training programs on successful locating and interviewing were developed for telephone and field staff. Topics covered administrative procedures required for case management; quality control; locating; interactions with sample members, parents, and other contacts; the nature of the data to be collected; and the organization and operation of the CATI and CAPI programs used for data collection. Tracing specialists received an abbreviated training specific to the needs of BPS:1996/2001.

Interviewing

CATI locating and interviewing began at the end of February 2001. Contact information for the BPS:96/98 respondents was loaded into CATI initially, followed by contact information for the BPS:96/98 nonrespondents several weeks after the start of CATI. Field interviewing began about 12 weeks following the start of telephone interviewing.

Of the original starting sample, 21 sample members were found to be deceased since the last interview. The unweighted contact rate among the remaining BPS:1996/2001 sample members was 92 percent. Of those contacted, 96 percent were interviewed, for an overall unweighted response rate of 88 percent.

Refusal conversion

Important to successful interviewing was the ability of the interviewers to gain the cooperation of sample members, thereby avoiding a refusal. The telephone interviewers included refusal conversion specialists with special training in attempting to convert (interview) sample members who have refused to complete the interview. From the point when a sample member refused, the case was handled only by these conversion specialists. In BPS:1996/2001, 1,860 sample members refused at least once to participate in the interview. Of those, 74 percent were converted and interviewed.

Field interviewing

Field interviewers were assigned a total of 1,213 cases, covering 30 geographic clusters. Cases were identified for the field for a number of reasons, including inability to locate in CATI, Puerto Rico residence, refusal in CATI, and exhaustion of locating leads. Only cases located in reasonable geographic proximity to a field interviewer were assigned to the field. Of the 1,213 cases fielded, 80 percent were contacted, and 90 percent of those were interviewed, for an unweighted response rate of 72 percent.

Nonresponse incentive

Incentives were offered as necessary to targeted sample members in order to encourage participation among sample members who would otherwise not have participated in the interview. Those offered incentives included the BPS:96/98 nonrespondents, a subset of refusal cases, and those who were hard to reach or could not be located. By the end of data collection, 4,106 sample members had been offered incentives and, of those, 72 percent were converted.

Indeterminate responses

Efforts were made to encourage response to all items in the BPS:1996/2001 interview and to convert indeterminate responses (i.e., "don't know" and "refusal" responses), especially for those items that historically have had high nonresponse (e.g., income). As a result, item nonresponse was quite low throughout the interview. Only 9 of the 445 CATI items had indeterminate response rates in excess of 10 percent.

Interview timing

The average administration time for the BPS:1996/2001 interview was 17.8 minutes, over 2 minutes shorter than the first follow-up interview (BPS:96/98). In the 2001 interview, BPS:96/98 nonrespondents took an average of 3.6 minutes longer than BPS:96/98 respondents. This is because the 2001 interview updated enrollment and employment information since the last interview (in 1996 for BPS:96/98 nonrespondents and in 1998 for BPS:96/98 respondents).

Online coding

The BPS:1996/2001 instrument included systems allowing the interviewer to perform computer-assisted online coding of literal responses for postsecondary institution, major, occupation, and industry. These online coding systems were designed to improve data quality by capitalizing on the availability of the respondent to clarify responses at the time the coding was performed. Only the postsecondary institution coding system—which included only U.S. institutions—resulted in more than 10 percent uncodeable responses, primarily because some sample members attended foreign institutions.

Analysis Weights

Cross-sectional weights were developed for analyzing the respondents to the BPS:1996/2001 interview. In addition, two longitudinal weights were constructed, one for analyzing the students who participated in all three interviews—NPSAS:96, BPS:96/98, and BPS:1996/2001—and the other for analyzing the students who participated only in NPSAS:96 and BPS:1996/2001. Variances were computed using the Taylor Series and balanced repeated replications (BRR) techniques. Weighted response rates and survey design effect tables are provided in the complete report.

Data Files

Because BPS:1996/2001 was the third of three interviews, the BPS:1996/2001 data set includes the derived variable and interview files for all three interviews. Also included are data collected from institution records, government databases, and admission test vendors throughout the period covered by the NPSAS:96 interview through the BPS:1996/2001 interview.

Products

In addition to the methodology report, NCES plans to release the following major products for BPS:1996/2001: a public-use Data Analysis System (DAS), restricted-use research files with an associated electronic codebook (ECB), and a descriptive summary of significant findings with an essay on the persistence and attainment of students at 4-year institutions. The DAS, containing derived variables and associated documentation, will enable users to specify and create numerous tables. Restricted-use files will be available to those researchers who need raw data not included in the DAS and who have applied for and received authorization from NCES. The descriptive summary, as the first NCES report based on this data set, will discuss major findings on persistence and attainment and present additional descriptive statistics in a table compendium.

Data source: The NCES 1996/2001 Beginning Postsecondary Students Longitudinal Study (BPS:1996/2001).

For technical information, see the complete report:

Wine, J.S., Heuer, R.E., Wheeless, S.C., Francis, T.L., Franklin, J.W., and Dudley, K.M. (2002). *Beginning Postsecondary Students Longitudinal Study: 1996–2001 (BPS:1996/2001) Methodology Report* (NCES 2002–171).

Author affiliations: J.S. Wine, R.E. Heuer, S.C. Wheeless, T.L. Francis, J.W. Franklin, and K.M. Dudley, Research Triangle Institute.

For questions about content, contact Paula R. Knepper (paula.knepper@ed.gov).

To obtain the complete report (NCES 2002–171), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report

Sameer Y. Abraham, Darby Miller Steiger, Margrethe Montgomery,
Brian D. Kuhr, Roger Tourangeau, Bob Montgomery, and
Manas Chattopadhyay

This article was originally published as the Executive Summary of the Technical Report of the same name. The sample survey data are from the NCES National Study of Postsecondary Faculty (NSOPF).

Introduction

The 1999 National Study of Postsecondary Faculty (NSOPF:99) serves a continuing need for data on faculty and other instructional staff,[1] all of whom directly affect the quality of education in postsecondary institutions. Faculty determine curriculum content, performance standards for students, and the quality of students' preparation for careers. In addition, faculty perform research and development work upon which the nation's technological and economic advancement depend. For these reasons, it is essential to understand who they are; what they do; and whether, how, and why the nation's faculty are changing.

Target Population and Sample Design

NSOPF:99 utilized a sample of 960 institutions and 28,576 full- and part-time faculty employed at these institutions. The sample was designed to allow detailed comparisons and high levels of precision at both the institution and faculty levels. The sampled institutions represent all public and private not-for-profit Title IV-participating, degree-granting institutions in the 50 states and the District of Columbia.

Both the sample of institutions and the sample of faculty were stratified, systematic samples. The institution sample was stratified by Carnegie classifications that were aggregated into fewer categories. The faculty sample was stratified by gender and race/ethnicity.

The sample for NSOPF:99 was selected in three stages. In the initial stage, 960 postsecondary institutions were selected from the 1997–98 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IC) data files and the 1997 and 1995 IPEDS Fall Staff files.[2] Each sampled institution was asked to provide a list of all of the full- and part-time faculty that the institution employed during the 1998 fall term, and 819 institutions provided such a list.

In the second stage of sampling, 28,576 faculty were selected from the lists provided by the institutions. Over 1,500 of these sample members were determined to be ineligible for NSOPF:99, as they were not employed by the sampled institution during the 1998 fall term, resulting in a sample of 27,044 faculty.

A third stage of sampling occurred in the final phases of data collection. In order to increase the response rate, a subsample of the faculty who had not responded was selected for intensive follow-up efforts. Others who had not responded were eliminated from the sample, resulting in a final sample of 19,213 eligible faculty.

Data Collection Design and Outcomes

NSOPF:99 involved a multistage effort to collect data from sampled faculty. At the same time that institutions were asked to provide a list of all their faculty and instructional staff (as described above), they were also asked to complete a questionnaire about their policies regarding tenure, benefits, and other policies. Counts of full-time and part-time faculty were also requested on the questionnaire. Prior to sampling faculty from the lists provided by the institutions, counts of faculty on the lists were compared with counts on the questionnaires. If no questionnaire data were provided, the list counts were compared to the prior year's IPEDS data. If a discrepancy of more than 5 percent existed, intensive follow-up was conducted to rectify the inconsistency. Once an institution's list was determined to be accurate and complete, faculty were sampled from the list and were invited to participate in the study. Intensive locating was performed to ensure that an updated home or campus address was available for each sample member.

Institution data collection

Institutional recruitment began in September 1998 when the Chief Administrative Officer (CAO) for each sampled institution was asked to designate an institution coordinator, who would be responsible for providing both the list of faculty and the institution questionnaire. The institution coordinator was then mailed a complete data collection packet, including both the institution questionnaire and instructions for compiling the list of faculty. The coordinator had the option of completing the questionnaire via the Internet or returning a paper questionnaire. The list of faculty could be provided in any format; institutions were encouraged to provide the list in an electronic format, if possible. Follow-up with coordinators was conducted via telephone, mail, and e-mail. The field period for list and institution questionnaire collection encompassed approximately 54 weeks.

---

[1] In the interest of brevity, this report uses the term "faculty" interchangeably with "faculty and other instructional staff."

[2] Information about IPEDS, as well as data and publications, can be found on the Internet at http://nces.ed.gov/ipeds/.

Of the 959 institutions that were determined to be eligible to participate in NSOPF:99, a total of 819 institutions provided lists of their faculty and instructional staff, resulting in an unweighted participation rate of 85.4 percent. A total of 865 institutions returned the institution questionnaire, resulting in an unweighted questionnaire response rate of 90.2 percent.

Faculty data collection

Because lists of faculty were received on a rolling basis, faculty were sampled in seven waves. Data collection for wave 1 began in February 1999, and data collection for wave 7 began in December 1999. Sampled faculty were given the option of completing a paper questionnaire and returning it by mail or completing the questionnaire via the Internet. Sampled faculty in each wave received a coordinated series of mail, e-mail, and telephone follow-up, including as many as two additional mailings of the questionnaire and six e-mail reminders. Telephone follow-up included telephone prompting to encourage self-administration, followed by computer-assisted telephone interviewing (CATI) for nonresponding faculty.

Of the final sample of 19,213 faculty who were determined to be eligible to participate in NSOPF:99, a total of about 17,600 respondents completed the faculty questionnaire, resulting in a weighted response rate of 83.2 percent. This response rate takes into account the reduction of the active sample through subsampling as described earlier.

Quality Control

Quality control procedures were implemented for receiving faculty list data and processing it for sampling, monitoring the receipt of completed questionnaires, preparing paper questionnaires for data entry, editing paper questionnaires for overall adequacy and completeness, entering the data, flagging cases with missing or inconsistent data through automated consistency checks, coding responses, checking data entry, and preparing questionnaires, lists, and other documentation for archival storage.

Data Quality

Item nonresponse

One measure of data quality is item nonresponse rates. Item nonresponse occurs when a respondent does not complete a questionnaire item. Item nonresponse creates two problems for survey analysts. First, it reduces the sample size and thus increases sampling variance. This happens when respondents must be eliminated from the sample that is used for analyses because they failed to respond to a large percentage of the questionnaire items. As a result, insufficient sample sizes may hinder certain analyses such as subgroup comparisons. Second, item nonresponse may give rise to nonresponse bias. To the extent that the missing data for a particular item differ from the reported data for that item, the reported data are unrepresentative of the survey population. Item nonresponse is also worth examining because it can signal items that respondents had difficulty answering.

Item nonresponse rates were calculated by dividing the total number of responses to a question by the number of respondents eligible to respond to that item (n). The standard error of the item nonresponse rate (SE) equals the square root of (RATE * (1–RATE)/n). In general, this means that the larger the number of eligible respondents for a particular question and the further the nonresponse rate is from .5, the lower the standard error. Because these estimates were conditional on selection into the sample and do not represent population estimates, for simplicity's sake, the standard errors for item nonresponse rates were modeled as though the sample were a simple random sample. For questions containing multiple subitems, each subitem was counted as a unique question.

The mean item nonresponse rate for the institution questionnaire was 3.4 percent (SE=.004). Overall, the item nonresponse rate for the faculty questionnaire was 6.2 percent. More than half of the items on the faculty questionnaire (55 percent) had an item nonresponse rate of less than 5 percent, 25 percent had rates between 5 and 10 percent, and 20 percent had rates greater than 10 percent.

Discrepancies in faculty counts

Another measure of data quality is the magnitude of discrepancies in faculty counts on the lists and questionnaires provided by institutions. When institutions provided discrepant data, they tended to provide more faculty on the questionnaire than on the list. As was detected in earlier rounds of NSOPF, some institutions had difficulty generating lists of part-time faculty. Without discrepancy checks, this can result in serious coverage error, with part-time faculty given less of an opportunity to participate in NSOPF:99. Similarly, earlier cycles of NSOPF indicated that some institutions were less likely to include medical faculty on their lists. Special reminders were inserted into the list collection instructions to encourage institutions to remember to include part-time faculty and medical faculty. In addition, a rigorous check was conducted to ensure the completeness of the faculty lists, with intensive follow-up if needed.

Nearly 43 percent of the institutions returning both a questionnaire and a list provided identical data on both. An additional 30 percent had discrepancies of 10 percent or less. Thus, roughly 73 percent of institutions provided data with a discrepancy of 10 percent or less. This stands in marked contrast to the previous cycle of NSOPF, where only 42 percent had discrepancies of 10 percent or less.

Data source: The NCES 1999 National Study of Postsecondary Faculty (NSOPF:99).

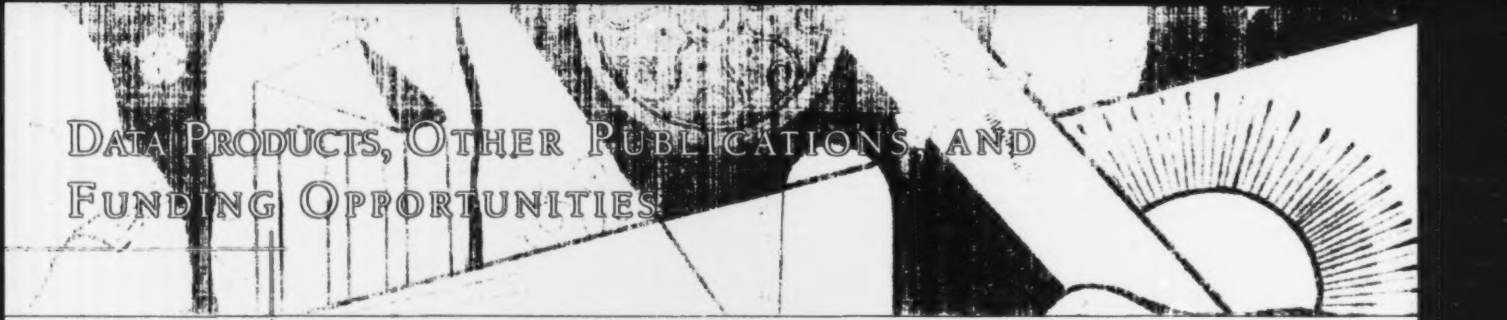
For technical information, see the complete report:

Abraham, S.Y., Steiger, D.M., Montgomery, M., Kuhr, B.D., Tourangeau, R., Montgomery, B., and Chattopadhyay, M. (2002). *1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report* (NCES 2002–154).

Author affiliations: S.Y. Abraham, D.M. Steiger, M. Montgomery, B.D. Kuhr, R. Tourangeau, B. Montgomery, and M. Chattopadhyay, The Gallup Organization.

For questions about content, contact Linda J. Zimbler (linda.zimbler@ed.gov).

To obtain the complete report (NCES 2002–154), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).



Data Products, Other Publications, and Funding Opportunities

Data Products

Data File: CCD Public Elementary/Secondary School Universe Survey: School Year 2000–01 154

Data File: CCD Local Education Agency Universe Survey: School Year 2000–01 154

Data File: CCD Local Education Agency (School District) Universe Dropout Data: 1999–2000 154

Data File: CCD National Public Education Financial Survey: Fiscal Year 2000 155

CD-ROM: NELS:88/2000 Public-Use Data Files and Electronic Codebook—Base Year Through Fourth Follow-up 155

Data File, Public-Use: 1998 Academic Library Survey 155

Data File, Public-Use: Public Libraries Survey: Fiscal Year 2000 156

Other Publications

The Nation's Report Card: Geography Highlights 2001
National Center for Education Statistics 156

Safety in Numbers: Collecting and Using Crime, Violence, and Discipline Incident Data to Make a Difference in Schools
Irene Hantman, Ghedam Bairu, Annette Barwick, Bill Smith, Bunny Mack, Susan Meston, Linda Rocks, and Brad James 156

Developments in School Finance: 1999–2000
William J. Fowler, Jr. (editor) 157

Pocket Projections: Projections of Education Statistics to 2012
William J. Hussar and Debra E. Gerald 157

National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-up Data File User's Manual
Thomas R. Curtin, Steven J. Ingels, Shiying Wu, and Ruth Heuer 157

Funding Opportunities

The AERA Grants Program 158

The NAEP Secondary Analysis Grant Program 158

Data Products

Data File: CCD Public Elementary/Secondary School Universe Survey: School Year 2000–01

Part of the NCES Common Core of Data (CCD), the "Public Elementary/Secondary School Universe Survey" has two primary purposes: (1) to provide a complete listing of all public elementary and secondary schools located in the 50 states, District of Columbia, and five outlying areas, or operated by the Department of Defense or Bureau of Indian Affairs; and (2) to provide basic information and descriptive statistics on all schools, their students, and their teachers. Data are provided annually by state education agencies (SEAs) from their administrative records. The 2000–01 data set contains 96,570 records, one for each of the listed schools.

The following information is included for each school: NCES and state school ID numbers; name of the agency that operates the school; name, address, and phone number of the school; school type (regular, special education, vocational education, or alternative); operational status (open, closed, new, added, or changed agency); locale code; latitude and longitude; full-time-equivalent classroom teacher count; low/high grade span offered; school level; Title I and schoolwide Title I eligibility status; magnet school and charter school status (yes or no); free lunch–eligible, reduced-price lunch–eligible, and total free and reduced-price lunch–eligible students; migrant students enrolled in previous year; student totals and detail (by grade, race/ethnicity, and gender); and pupil/teacher ratio.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Beth Young (beth.young@ed.gov).

To obtain this data product (NCES 2002–362), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD Local Education Agency Universe Survey: School Year 2000–01

The Common Core of Data (CCD) "Local Education Agency Universe Survey" is one of the surveys that make up the CCD collection of surveys. This survey provides (1) a complete listing of every education agency in the United States responsible for providing free public elementary/secondary instruction or education support services; and (2) basic information about all education agencies and the students for whose education the agencies are responsible. Most of the agencies listed are school districts or other local education agencies (LEAs). The data are provided annually by state education agencies (SEAs) from their administrative records. The 2000–01 data set contains 17,149 records, one for each public elementary/secondary education agency in the 50 states, District of Columbia, five outlying areas, Department of Defense, and Bureau of Indian Affairs.

The data file includes the following information for each listed agency: NCES and state agency ID numbers; agency name, address, and phone number; agency type code; supervisory union number; county name; FIPS county code; metropolitan statistical area and metropolitan status codes; district locale code; operational status code; low/high grade span offered; number of ungraded students; number of PK–12 students; number of migrant students served in special programs; number of special education/Individualized Education Program students; instructional staff fields; support staff fields; number of limited-English-proficient students; and number of diploma recipients and other high school completers (by race/ethnicity and gender). Dropout counts by grade, race/ethnicity, and gender are published separately from the rest of the data.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Beth Young (beth.young@ed.gov).

To obtain this data product (NCES 2002–360), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD Local Education Agency (School District) Universe Dropout Data: 1999–2000

Starting with the 1997–98 school year, Common Core of Data (CCD) dropout data have been reported in a separate data file, constructed from data collected through the "Local Education Agency Universe Survey" and the "Public Elementary/Secondary School Universe Survey." The 1999–2000 file provides dropout data for the local education agencies in 42 states and other jurisdictions. In addition to each agency's NCES ID code, name, address, and phone number, the Dropout File provides the following information: number of dropouts by grade, race/ethnicity, and sex; dropout rates by grade, race/ethnicity, and sex; and the enrollment base used in computing the dropout rates. Users can merge the Dropout File with the Local Education Agency Universe File by using the NCES ID code for the agency.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact Beth Young (beth.young@ed.gov).

To obtain this data product (NCES 2002-384), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD National Public Education Financial Survey: Fiscal Year 2000

The Common Core of Data (CCD) "National Public Education Financial Survey" (NPEFS) provides detailed state-level data on public elementary and secondary education finances. Financial data are audited at the end of each fiscal year and then submitted to NCES by the state education agencies (SEAs) from their administrative records. This file provides data for fiscal year 2000 (school year 1999–2000). The data set contains 55 records, one for each of the 50 states, District of Columbia, and four of the outlying areas (American Samoa, Northern Marianas, Puerto Rico, and the Virgin Islands). (Guam did not report any data.)

For each state or jurisdiction, the data file includes revenues by source (local, intermediate, state, and federal); local revenues by type (e.g., local property taxes); current expenditures by function (instruction, support, and noninstruction) and by object (e.g., teacher salaries or food service supplies); capital expenditures (e.g., school construction and instructional equipment); average number of students in daily attendance; and total number of students enrolled.

The data can be downloaded from the NCES Electronic Catalog either as an Excel file or as a flat file that can be used with statistical processing programs, such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Frank H. Johnson (frank.johnson@ed.gov).

To obtain this data product (NCES 2002-381), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

CD-ROM: NELS:88/2000 Public-Use Data Files and Electronic Codebook—Base Year Through Fourth Follow-up

The NCES National Education Longitudinal Study of 1988 (NELS:88) was designed to provide longitudinal data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. For this study, a nationally representative sample of eighth-graders was first surveyed in 1988. A fourth follow-up was conducted in 2000 to examine what this cohort had accomplished 12 years after the baseline survey. The 2000 data were collected at a key stage of life transitions for the eighth-grade class of 1988—most had been out of high school for nearly 8 years and many had already completed postsecondary education, started or even changed careers, and started to form families.

This CD-ROM contains public-release data files and an updated electronic codebook from the NELS:88 base year (1988) through the fourth follow-up (2000). Also included is a data file user's manual, which is also available as a separate publication (NCES 2002–323). This CD-ROM contains only the sample surveyed in the year 2000. For any analysis using only data collected prior to the fourth follow-up, the NELS:88/94 CD-ROM (NCES 2000–328) is needed.

For questions about this CD-ROM, contact Ilona Berkovits (ilona.berkovits@ed.gov).

To obtain this CD-ROM (NCES 2002-322), call the toll-free ED Pubs number (877-433-7827).The Read-Me and ECB-Help files can also be downloaded from the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File, Public-Use: 1998 Academic Library Survey

The NCES Academic Library Survey (ALS) provides an overview of academic libraries nationally and by state. Through 1998, the survey was part of the Integrated Postsecondary Education Data System (IPEDS). Data are collected biennially from U.S. postsecondary institutions. The 1998 data set contains 3,816 records, one for each degree-granting postsecondary institution that was located in the 50 states or the District of Columbia and had an academic library.

This data file includes information about the following: total library operating expenditures, full-time-equivalent library staff, service outlets, total volumes held at the end of the academic year, circulation, interlibrary loans, public service hours, patron count, reference transactions per typical week, and various types of electronic services.

The data and related documentation can be downloaded from the NCES Electronic Catalog in Microsoft Access, SAS, or ASCII (flat file) formats.

For questions about this data product, contact Jeffrey W. Williams (jeffrey.williams@ed.gov).

To obtain this data product (NCES 2002–320), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File, Public Use: Public Libraries Survey: Fiscal Year 2000

The Public Libraries Survey (PLS) is conducted annually by NCES through the Federal-State Cooperative System (FSCS) for Public Library Data. The data are collected by a network of state data coordinators appointed by the Chief Officers of State Library Agencies (COSLA). For fiscal year (FY) 2000, the PLS includes data from 9,078 public libraries in the 50 states, the District of Columbia, and the outlying areas of Guam, the Northern Marianas, Palau, and the U.S. Virgin Islands.

Three database files were generated from the FY 2000 PLS: Public Library Data File, Public Library State Summary/State Characteristics Data File, and Public Library Outlet Data File. The files include data on population of legal service area, number of full-time-equivalent staff, service outlets, public service hours, library materials, operating income and expenditures, capital outlay, total circulation, circulation of children's materials, reference transactions, library visits, children's program attendance, interlibrary loans, and electronic services.

The data and related documentation can be downloaded from the NCES Electronic Catalog in Microsoft Access or ASCII (flat file) formats.

For questions about this data product, contact P. Elaine Kroe (patricia.kroe@ed.gov).

To obtain this data product (NCES 2002–341), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Other Publications

The Nation's Report Card: Geography Highlights 2001

National Center for Education Statistics

The National Assessment of Educational Progress (NAEP), known as "The Nation's Report Card," is authorized by Congress, administered by NCES, and overseen by the National Assessment Governing Board (NAGB). For over 30 years, NAEP has been the only ongoing national indicator of what American students know and can do in major academic subjects. In 2001, NAEP administered a geography assessment to a national sample representative of all students at grades 4, 8, and 12. The findings from the NAEP 2001 Geography Assessment provide a picture of U.S. students' geography knowledge, skills, and achievement.

This 20-page publication uses a full-color tabloid format to present highlights from the 2001 geography assessment. It describes the assessment content, presents major findings, and provides information about practices in school that are related to geography achievement. Results in 2001 are compared to results in 1994. The publication also includes sample test questions and examples of student responses.

For questions about content, contact Arnold Goldstein (arnold.goldstein@ed.gov).

To obtain this publication (NCES 2002–485), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Safety in Numbers: Collecting and Using Crime, Violence, and Discipline Incident Data to Make a Difference in Schools

Irene Hantman, Ghedam Bairu, Annette Barwick, Bill Smith, Bunny Mack, Susan Meston, Linda Rocks, and Brad James

In 1996, the National Forum on Education Statistics published *Recommendations of the Crime, Violence, and Discipline Reporting Task Force*, a report that outlined a set of definitions and protocols for the collection of crime, violence, and discipline data. As part of an ongoing effort to promote data-driven educational policy decisionmaking, NCES and the Forum reconvened the Crime, Violence, and Discipline Task Force—made up of state and school district administrators, education policy researchers, and Department of

Education program and research staff—in 2000 to update the initial report.

The result is this handbook, which is designed to be used by school, district, and state staff to improve the effectiveness of their efforts to collect and use disciplinary incident data. It provides recommendations on what types of data to collect, why it is critical to collect such data, and how the data can be used effectively to improve school safety and answer policy questions relating to school improvement and the safety of students. This publication contains no actual data.

Author affiliations: I. Hantman, Westat, Inc.; G. Bairu, NCES; A. Barwick, Hillsborough County School District, Florida; B. Smith, Sioux Falls School District, South Dakota; B. Mack, South Carolina Department of Education; S. Meston, Muskegon Area Intermediate School District, Michigan; L. Rocks, Bossier Parish School Board, Louisiana; and B. James, Vermont State Department of Education.

For questions about this handbook, contact Ghedam Bairu (ghedam.bairu@ed.gov).

To obtain this handbook (NCES 2002–312), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Developments in School Finance: 1999–2000

William J. Fowler, Jr. (editor)

Developments in School Finance: 1999–2000 is the sixth education finance publication from the annual NCES Summer Data Conference. Each year, state department of education policymakers, fiscal analysts, and fiscal data providers attend the conference for fiscal training sessions and presentations by invited experts on developments in the field of education finance. This publication contains six of the papers presented at the July 1999 and July 2000 conferences.

The 1999 Summer Data Conference addressed the theme "Statistics, Technology, and Analysis for Tomorrow's Data Collections." Discussions and presentations focused on technology, data collection, and their implications for education finance reform. The theme for the 2000 Summer Data Conference was "Changing Data Into Information: A Bridge to Better Policy" and focused on understanding data and survey changes and their implications for education finance reform. Individual papers explore the following specific topics: the emphasis on performance-based accountability; the use of national data to assess local school district spending on professional development; how education finance systems can be designed to ensure that all students achieve high levels of learning; the policy shifts in education in the 1990s as standards-based reforms took hold; and discussions of evidence from litigation cases in various states and their effect on education finance.

Editor affiliation: W.J. Fowler, Jr., NCES.

For questions about this publication, contact William J. Fowler (william.fowler@ed.gov).

To obtain this publication (NCES 2002–316), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Pocket Projections: Projections of Education Statistics to 2012

William J. Hussar and Debra E. Gerald

Each year, NCES publishes this pocket summary of the *Projections of Education Statistics*. The pocket summary provides the reader with key information extracted from the full report. Included are data on actual and projected enrollment at all education levels, numbers of high school graduates, and earned degrees conferred for postsecondary institutions. This year's edition of *Pocket Projections* includes 1989–90 data as well as estimates for 2000–01 and projections for 2011–12.

Author affiliations: W.J. Hussar and D.E. Gerald, NCES.

For questions about this pocket summary, contact William J. Hussar (william.hussar@ed.gov).

To obtain this pocket summary (NCES 2002–033), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

National Education Longitudinal Study of 1988: Base-Year to Fourth Follow-up Data File User's Manual

Thomas R. Curtin, Steven J. Ingels, Shiying Wu, and Ruth Heuer

This data file user's manual documents the procedures and methodologies employed during the National Education Longitudinal Study of 1988 (NELS:88). The manual is designed to provide guidance and documentation for users of the public-release data for the base-year data collection in 1988 through the fourth follow-up in 2000 (NELS:88/2000). Although more comprehensive information is supplied for the fourth follow-up, this manual also provides the results of the previous data collections, which took place in 1988 (base year), 1990 (first follow-up), 1992 (second follow-up), and 1994 (third follow-up). This manual will familiarize the user with each wave of NELS:88.

While some information is provided about restricted-use data, this manual primarily focuses on public-use data, particularly as contained in the public-use

Electronic Codebooks (ECBs). This manual contains five chapters and six appendices.

Author affiliations: T.R. Curtin, S.J. Ingels, S. Wu, and R. Heuer, Research Triangle Institute.

For questions about this user's manual, contact Jeffrey A. Owings (jeffrey.owings@ed.gov).

To obtain this user's manual (NCES 2002-323), call the toll-free ED Pubs number (877-433-7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Funding Opportunities

The AERA Grants Program

Jointly funded by the National Science Foundation (NSF), NCES, and the Institute of Education Sciences, this training and research program is administered by the American Educational Research Association (AERA). The program has four major elements: a research grants program, a dissertation grants program, a fellows program, and a training institute. The program is intended to enhance the capability of the U.S. research community to use large-scale data sets, specifically those of the NSF and NCES, to conduct studies that are relevant to educational policy and practice, and to strengthen communications between the educational research community and government staff.

Applications for this program may be submitted at any time. The application review board meets three times per year. The following are examples of grants recently awarded under the program:

Research Grants

- ☐ Albert Beaton, Boston College—Examining Changes in International Multilevel Variance and Student Correlates of Mathematics Achievement Using Data From TIMSS 1995 and TIMSS 1999
- ☐ Sharon Judge, University of Tennessee—Resilient and Vulnerable At-Risk Children: What Makes the Difference?
- ☐ Xiaofeng Liu, University of South Carolina—Professional Support, School Conditions, and First-Year Teacher Attrition
- ☐ Ann O'Connell, University of Connecticut—Factors Associated With Growth in Proficiency During Kindergarten and Through First Grade
- ☐ David Post, University of Pittsburgh—Academic Achievement by Working Eighth-Grade Students in Ten Nations
- ☐ Linda Renzulli, University of Georgia—School Choice Whose Choice?

Dissertation Grants

- ☐ Guanglei Hong, University of Michigan—Causal Inference for Multi-Level Observational Data With Applications to Educational Research
- ☐ Doo Hwan Kim, University of Chicago—My Friend's Parents and My Parent's Friends: Impact of Parental Resources on Student's Competitiveness for College
- ☐ Natalie Lacireno-Paquet, George Washington University—Charter School Responses to Policy Regimes and Markets: The Effect on Service to Disadvantaged Students
- ☐ Kate Mahoney, Arizona State University—Linguistic Influences in Differential Item Functioning for English Learners on the NAEP Mathematics, 1996
- ☐ Colin Ong-Dean, University of California, San Diego—Parents' Role in the Diagnosis and Accommodation of Disabled Children in the Educational Context
- ☐ Ying Zhou, Pennsylvania State University—Examining the Influences on Faculty Departure Using NSOPF:99

For more information, contact Edith McArthur (edith.mcarthur@ed.gov) or visit the AERA Grants Program web site (http://www.aera.net/grantsprogram).

The NAEP Secondary Analysis Grant Program

The NAEP Secondary Analysis Grant Program was developed to encourage education researchers to conduct secondary analysis studies using data from the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies. This program is open to all public or private organizations and consortia of organizations. The program is typically announced annually, in the late fall, in the *Federal Register*. Grants awarded under this program run from 12 to 18 months and awards range from $15,000 to $100,000. The following grants were awarded for fiscal year 2002:

- ☐ Hua-Hua Chang, University of Texas at Austin—Improving the DIF Detection Procedures for NAEP Data Analysis
- ☐ Laura Desimone, Vanderbilt University—Preparation, Professional Development, and Policy in Mathematics: Does It All Add Up?

- Henry Braun, Educational Testing Service—Using State NAEP Data to Examine Patterns in Eighth-Grade Mathematics Achievement and the Efficacy of State Education Policy Initiatives
- Susan Lubienski, Iowa State University—A Closer Look at Mathematics Achievement and Instructional Practices: Examinations of Race, SES, and Gender in a Decade of NAEP Data
- Kendrick Curry, United Negro College Fund Special Programs Corporation—The Trickle Down Effect: How Teacher Quality and Recruitment Practices Affect the Achievement of African American Students in a Three-State Metropolitan Area
- Claudia Gentile, Educational Testing Service—Reading Test Design, Validity, and Fairness: A Re-Analysis of Data From the 2000 Fourth-Grade Reading Assessment
- Matthias von Davier, Educational Testing Service—A Tool for Improved Precision Reporting in Secondary Analysis of National and State Level NAEP Data
- Norman Webb, University of Wisconsin—Informing State Mathematics Reform Through State NAEP
- Laura O'Dwyer, Boston College—Estimating the Full NAEP Population Distribution: Imputing Scores for Excluded SD and LEP Students Using Hierarchical Linear Modeling Techniques

For more information, contact Alex Sedlacek (alex.sedlacek@ed.gov).

U.S. Department of Education
ED Pubs
8242-B Sandy Court
Jessup, MD 20794-1398

Official Business
Penalty for Private Use, $300

U.S. POSTAGE PAID
U.S. DEPARTMENT
OF EDUCATION
PERMIT NO. G-17

TM034742

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC®

NOTICE

Reproduction Basis

☐ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☒ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").

EFF-089 (3/2000)